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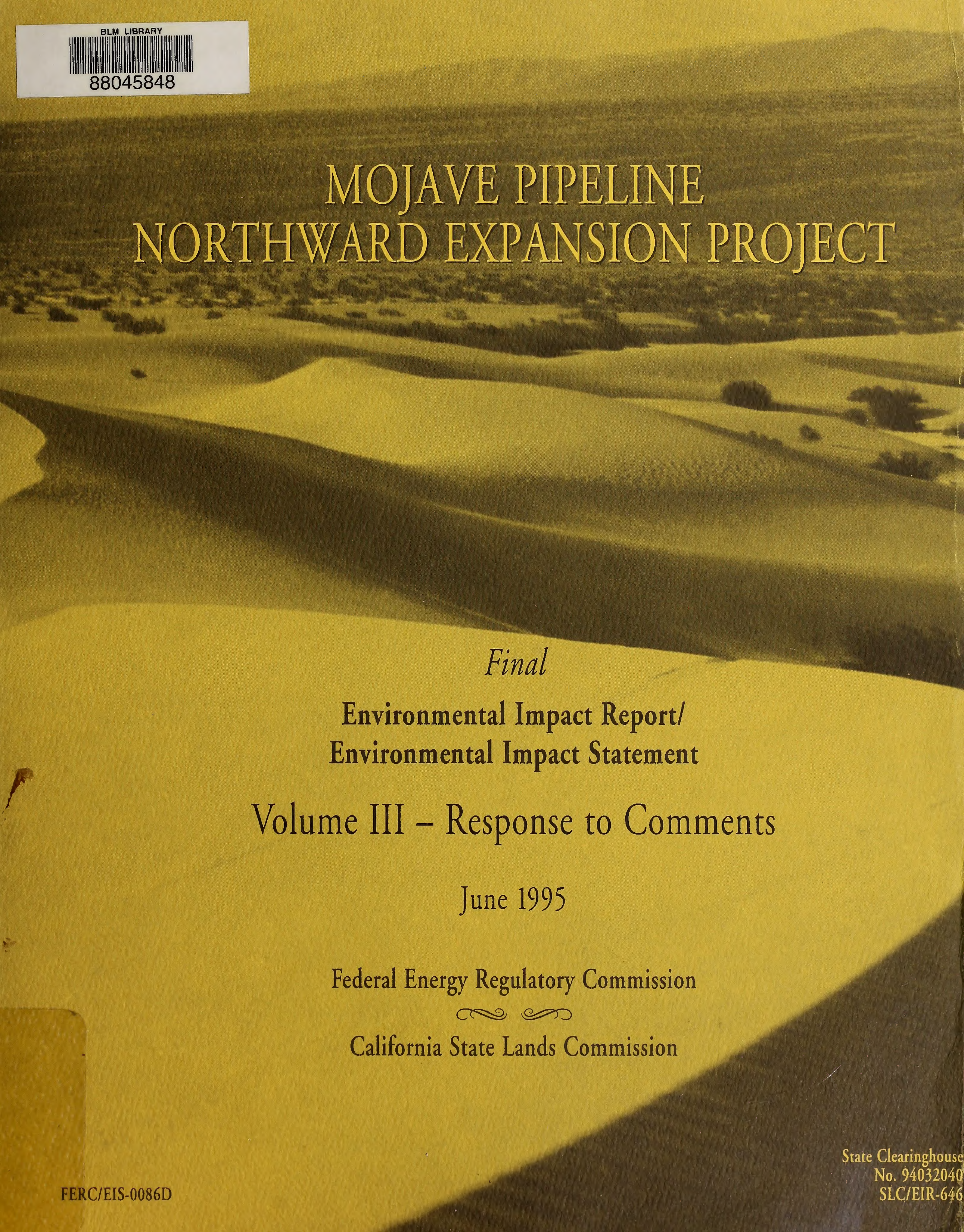

MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT

Final

**Environmental Impact Report/
Environmental Impact Statement**

Volume III – Response to Comments

June 1995

Federal Energy Regulatory Commission

California State Lands Commission

FERC/EIS-0086D

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MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT

VOLUME III

Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

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June 1995

FERC/EIS-0086D
FERC Docket
Nos. CP93-258-000 et al.

EIR 646
State Clearinghouse
No. 94032040

INTRODUCTION TO VOLUME III

The 90 letters of comment on the draft EIR/EIS that were received by the FERC and SLC staffs are reproduced in this volume of the final EIR/EIS. The letters are numbered and appear in the order in which they were received. The individual comments within each letter are indicated by vertical bars and are numbered in the left margin. Our response to each individual comment is correspondingly numbered. The responses appear to the right of the letter.

Two lists precede the letters. The first lists the letters in numerical order. The second lists the letters received from government agencies by level of agency, i.e., Federal, state, county, city and other.

At the end of this volume are a subject index to the written comments and a table of the oral comments received at the public hearings on the draft EIR/EIS. All of the written and oral comments have been addressed in volume I of the final EIR/EIS.

Appendices D and I are included in this volume due to space limitations in volume I.

LIST OF COMMENT LETTERS

Letter Number	Commentor
1	West Bay Sanitary District, Menlo Park, California
2	City of Brisbane, Brisbane, California
3	County of Sacramento, Environmental Management Department, Sacramento, California
4	Joseph J. Gilbeau, Rancho Palos Verdes, California
5	Pavich Family Farms, Terra Bella, California
6	City of Selma, Selma, California
7	U.S. Department of the Air Force, Edwards Air Force Base, California
8	Samuel M. McGinnis, Ph.D., Environmental Consultant, WPM Planning Team, Manteca, California
9	Central Contra Costa Sanitary District, Martinez, California
10	General Teamsters Union, Local No. 431, Fresno, California
11	Elk Grove Community Services District, Dept. of Parks and Recreation, Elk Grove, California
12	Wente Bros., Livermore, California
13	Kern County Transportation Management Department, Bakersfield, California
14	Southern California Edison Company, Visalia, California
15	Ione Band of Miwok, Ione, California
16	Goble Properties, San Jose, California
17	Stanislaus County Sheriff's Department, Modesto, California
18	Porterville, Dept. of Community Development & Services, Porterville, California
19	City of San Carlos, San Carlos, California
20	California Department of Transportation, Oakland, California
21	Stanislaus County, Dept. of Environmental Resources, Modesto, California
22	East Bay Regional Park District, Oakland, California
23	North State Development Company, Concord, California
24	Dr. Samuel M. McGinnis, Manteca, California
25	U.S. Department of Commerce, Silver Spring, Maryland
26	Peninsula Corridor Joint Powers Board, San Carlos, California
27	Olivina Ranch, Livermore, California
28	Raymond Zuidervaart, Jr., Chesapeake, Virginia
29	Dr. Howard G. Wilshire, Mountain View, California
30	John W. McKissack & Judith A. McKissack, Creston, California
31	City of Pleasanton, Pleasanton, California
32	State of California - Environmental Protection Agency, Department of Toxic Substances Control, Berkeley, California
33	City of Pittsburg, Pittsburg, California
34	City of Antioch, Antioch, California
35	City of Modesto, Modesto, California
36	Bold, Polisner, Maddow, Nelson & Judson, Walnut Creek, California (Contra Costa Water District)
37	Pacific Gas and Electric Company, San Francisco, California
38	Alameda County Planning Department, Hayward, California
39	City of Mountain View, Mountain View, California
40	Ellman, Burke, Hoffman & Johnson, San Francisco, California

LIST OF COMMENT LETTERS (Cont'd)

Letter Number	Commentor
41	East Bay Municipal Utility District, Oakland, California
42	County of Sacramento, Sacramento, California
43	RMC Lonestar, Pleasanton, California
44	U.S. Department of Health & Human Services, Atlanta, Georgia
45	Planning Department, City and County of San Francisco, California
46	San Joaquin Valley Unified Air Pollution Control District, Fresno, California
47	City of Palo Alto, Palo Alto, California
48	San Francisco Bay Conservation and Development Commission, San Francisco, California
49	State of California, Department of Fish and Game, Sacramento, California
50	California Integrated Waste Management Board
51	Stanford University Planning Office, Stanford, California
52	Linda M. VanSol
53	Kern County Health Department, Bakersfield, California
54	City of Tulare, Tulare, California
55	City of San Leandro, San Leandro, California
56	City of Fremont, Fremont, California
57	City of Menlo Park, Menlo Park, California
58	County of Santa Clara, Los Gatos, California
59	Santa Clara Valley Water District, San Jose, California
60	California Energy Commission, Sacramento, California
61	California Department of Transportation, Fresno, California
62	U.S. Department of the Interior, Bureau of Reclamation, Sacramento, California
63	Southern California Association of Government, Los Angeles, California
64	San Francisco Bay Trail, Oakland, California
65	Mountain Meadows Community Service District, Tehachapi, California
66	Souza, Coats, McInnis, Mehlhaff & Hay, Tracy, California
67	Laura Hinrichs, Santa Ana, California
68	Marti Sprinkle, Tehachapi, California
69	Arthur Unger, Bakersfield, California
70	Charles M. and Lillian Keyes
71	Alice F. Machado
72	Mr. and Mrs. T. Nies and Mr. and Mrs. C. Rhett, Jr.
73	Minard and Vivian Roorda
74	Loren Scheuper, Ripon, California
75	Van Till Farms, John Van Till, Manteca, California
76	Joseph Visser, Ripon, California
77	Jacqueline Winters, Ripon, California
78	Zumbach Ranch, Hans and Karen Zumbach, Livermore, California
79	Livermore Area Recreation & Park District, Livermore, California
80	Rio Bravo, Irvine, California
81	Metropolitan Water District of Southern California

LIST OF COMMENT LETTERS (Cont'd)

Letter Number	Commentor
82	Mojave Pipeline Company, Bakersfield, California
83	Construction, Building Material Teamsters and Miscellaneous Workers - Local #291, San Leandro, California
84	San Mateo County Health Services Agency, Environmental Health Services Division, Redwood City, California
85	County of Fresno, Fresno, California
86	U.S. Environmental Protection Agency - Region IX, San Francisco, California
87	Contra Costa County Flood Control & Water Conservation District, Martinez, California
88	State of California—The Resources Agency, Sacramento, California
89	U.S. Department of the Interior, Bureau of Land Management, California Desert District Office
90	California Department of Water Resources Plant Engineering Office

LIST OF COMMENT LETTERS FROM GOVERNMENT AGENCIES

Letter Number	Commentor
Federal Government Agencies	
7	U.S. Department of the Air Force, Edwards Air Force Base, California
25	U.S. Department of Commerce, Silver Spring, Maryland
44	U.S. Department of Health & Human Services, Atlanta, Georgia
62	U.S. Department of the Interior, Bureau of Reclamation, Sacramento, California
86	U.S. Environmental Protection Agency - Region IX, San Francisco, California
89	U.S. Department of the Interior, Bureau of Land Management, California Desert District Office
State Government Agencies	
20	California Department of Transportation, Oakland, California
32	State of California - Environmental Protection Agency, Department of Toxic Substances Control, Berkeley, California
48	San Francisco Bay Conservation and Development Commission, San Francisco, California
49	State of California, Department of Fish and Game, Sacramento, California
50	California Integrated Waste Management Board
60	California Energy Commission, Sacramento, California
61	California Department of Transportation, Fresno, California
88	State of California—The Resources Agency, Sacramento, California
90	California Department of Water Resources Plant Engineering Office
County Government Agencies	
3	County of Sacramento, Environmental Management Department, Sacramento, California
17	Stanislaus County Sheriff's Department, Modesto, California
13	Kern County Transportation Management Department, Bakersfield, California
21	Stanislaus County, Dept. of Environmental Resources, Modesto, California
38	Alameda County Planning Department, Hayward, California
42	County of Sacramento, Sacramento, California
53	Kern County Health Department, Bakersfield, California
58	County of Santa Clara, Los Gatos, California
84	San Mateo County Health Services Agency, Environmental Health Services Division, Redwood City, California
85	County of Fresno, Fresno, California
City and Other Local Government Agencies	
1	West Bay Sanitary District, Menlo Park, California
2	City of Brisbane, Brisbane, California
6	City of Selma, Selma, California
9	Central Contra Costa Sanitary District, Martinez, California
11	Elk Grove Community Services District, Dept. of Parks and Recreation, Elk Grove, California
13	Kern County Transportation Management Department, Bakersfield, California
18	Porterville, Dept. of Community Development & Services, Porterville, California
19	City of San Carlos, San Carlos, California

LIST OF COMMENT LETTERS FROM GOVERNMENT AGENCIES (Cont'd)

Letter Number	Commentor
City and Other Local Government Agencies (Cont'd)	
22	East Bay Regional Park District, Oakland, California
26	Peninsula Corridor Joint Powers Board, San Carlos, California
31	City of Pleasanton, Pleasanton, California
33	City of Pittsburg, Pittsburg, California
34	City of Antioch, Antioch, California
35	City of Modesto, Modesto, California
36	Bold, Polisner, Maddow, Nelson & Judson, Walnut Creek, California (Contra Costa Water District)
39	City of Mountain View, Mountain View, California
41	East Bay Municipal Utility District, Oakland, California
45	Planning Department, City and County of San Francisco, California
46	San Joaquin Valley Unified Air Pollution Control District, Fresno, California
47	City of Palo Alto, Palo Alto, California
54	City of Tulare, Tulare, California
55	City of San Leandro, San Leandro, California
56	City of Fremont, Fremont, California
57	City of Menlo Park, Menlo Park, California
59	Santa Clara Valley Water District, San Jose, California
63	Southern California Association of Government, Los Angeles, California
64	San Francisco Bay Trail, Oakland, California
65	Mountain Meadows Community Service District, Tehachapi, California
79	Livermore Area Recreation & Park District, Livermore, California
81	Metropolitan Water District of Southern California
87	Contra Costa County Flood Control & Water Conservation District, Martinez, California

LETTERS OF COMMENT RECEIVED ON THE DRAFT EIR/EIS AND THE FERC AND SLC RESPONSES

WEST BAY
SANITARY DISTRICT

500 Laurel Street, Menlo Park, California 94025-3486 (415) 32[illegible] (415) 321-4265 FAX

CHARLES W. THOMAS, JR.
District Manager

FILED
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FEDERAL ENERGY
REGULATORY
COMMISSION

In reply, please refer to our
File No.

February 9, 1995

Office of the Secretary
Federal Emergency Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

RE: DRAFT EIR/EIS - MOJAVE PIPELINE / NORTHWARD EXPANSION PROJECT
DOCKET NO. CP93-258-000, ET AL / CA CLEARINGHOUSE NO. 94032040

Dear Gentlemen:

The District has reviewed the Draft Environmental Impact Report/Environmental Impact Statement for the Mojave Pipeline Northward Expansion Project and has the following comments:

1-1 If Alternative 2 is constructed, the District requests that the Mojave Pipeline Operating Company (Mojave) field verify the location of District wastewater facilities within the construction project limits to avoid conflicts.

1-2 Any costs associated with the relocation or adjustment of District facilities due to the project would be the sole responsibility of Mojave.

1-3 Mojave would be required to comply with the Code of General Regulations and Specifications of the West Bay Sanitary District relating the construction and the use and storage of any toxic or hazardous materials within the District's jurisdiction.

We hope that this information is useful to you in preparing the final environmental impact report. Thank you for the opportunity to comment on the development of this project.

Very truly yours,

WEST BAY SANITARY DISTRICT

Maxine J. Harrington

Maxine J. Harrington
Projects Manager

MJH:nr

cc: CWT / DLA
Michael Boyle, FERC
Mary Griggs, SLC

1-1 Thank you for your comment letter. Mojave would coordinate with the West Bay Sanitary District and field verify the location of the District's wastewater facilities within the construction project area during the detailed design phase of the project.

1-2 Mojave would pay any costs associated with the relocation or adjustment of District facilities necessitated by the project.

1-3 Mojave has agreed to comply with the Code of General Regulations and Specifications of the West Bay Sanitary District related to the construction and the use and storage of any toxic or hazardous materials while on the District's property.

City of Brisbane

City Offices · 150 North Hill Drive, Suite 40 · Brisbane, California 94005
Telephone (415) 467-1515 · Fax (415) 467-4989

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95 FEB 13 AM 10:44

February 10, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

California State Lands Commission
1807 - 13th Street
Sacramento, Ca. 95814
Attention: Ms. Mary Griggs

Reference: Docket Nos. CP~~5~~93-258-000, et.
Mojave Pipeline Northward Expansion Project

Ladies and Gentlemen;

On June 8, 1994 I received a letter from Ms. Sandy Lare of Ecology and Environment, Inc., environmental consultants, requesting information to be included in an EIR/EIS for the Mojave Pipeline Northward Expansion Project. This was the first indication that the City of Brisbane would be included in the Pipeline project area. The Notice of Preparation that was circulated in April 1994 did not include any locations north of Palo Alto, either on the map or in the list of affected areas. We assumed that should Brisbane be included in the project description, we would be appropriately noticed and receive further information.

To be able to supply relevant data, I requested additional information on the Brisbane segment of the Pipeline from the Federal Energy Regulatory Commission and the State Lands Commission, but the only information available was the April Notice of Preparation. Unfortunately, on September 2, 1994, I had to inform Ms. Lisa Lynn at the State Lands Commission that the environmental consultants had now advised that it was too late to include any data that I could supply in the environmental documents.

I bring this to your attention because we would have gladly supplied the following information in time to be included in the environmental document had the process been handled differently. The EIR/EIS must now be corrected and the environmental issues that have been identified pertaining to the project within Brisbane's jurisdiction further analyzed and considered.

The comments that immediately follow pertain to the accuracy of Map 32 of 43, the Hunters Point Segment and San Francisco Segment of the Pipeline project.

2-1 1. The railroad right-of-way shown on Map 32 is not the property of Southern Pacific Railroad, but is owned by the Peninsula Joint Powers Board. The way the proposed route is drafted on the Map, it does not leave the railroad right-of-way until after MP 25.

2-2 2. The land use designations in Brisbane along the proposed route are listed incorrectly on the Map. They are Commercial/Retail/Office, Trade Commercial and Heavy Commercial, rather than Industrial.

2-3 3. Candlestick Cove School no longer exists. There is a private school in this general location.

2-4 4. Portions of the route have been identified as potential habitat for the San Francisco Fork-Tail Damsel-Fly.

2-5 5. The route traverses a number of areas that would be described as freshwater marsh (Fwm). We have noted these locations.

2-6 6. The report does not identify the former municipal refuse disposal landfill east of the railroad tracks on the Map or in the text discussion of soils or toxic issues.

2-7 7. The route shown on the legend indicates use of railroad right-of-way to urban street. On the Map it appears to follow the railroad right-of-way until it is parallel to Beatty Road and then connect to that street. Please note that there is no street connection from the right-of-way to Beatty Road and excavation through private property composed of municipal refuse landfill would be necessary to bring the pipeline along that route. Any excavation of refuse landfill would require approval
2-8 from the State Integrated Waste Management Board.

2-9 8. If the route would take Tunnel Avenue to Beatty Road, the route would be, in great part, on municipal refuse landfill. Parts of Tunnel Avenue remain a private street.

2-10 9. There are identified areas of toxic soil and groundwater contamination in the vicinity of the route. These areas are under remediation orders from the State Department of Toxic Substances Control and the Water Quality Control Board.

2-11 10. Filled soils in this area are subject to subsidence and severe ground-shaking intensity in a seismic event.

2-12 11. The Map is drafted so that the route strays out of the railroad right of way onto private property.

2-1 Thank you for your comment letter. See response to comment 26-1 for information on the ownership of the railroad right-of-way. The commentor is correct that the proposed route leaves the railroad right-of-way after MP 25.

2-2 We believe that the categories used in the map volume are adequate to identify and evaluate potential impact on land use. As shown on the Guide to Map Symbols and Abbreviations, the land use category "Ind/Com" includes industrial and commercial land uses.

2-3 Comment accepted. See deletion of the school from table 4.7.3-1.

2-4 Mojave's proposed route is within the existing railroad corridor and existing streets through the areas identified as potential habitat for the San Francisco fork-tailed damselfly. Mojave has conducted preliminary biological surveys of these areas and would conduct preconstruction biological surveys to assess impact on sensitive habitats and protected species.

2-5 Thank you for this information. See changes to table 4.4-2. Freshwater marshes were identified during field surveys. Wetlands would be further delineated prior to construction as discussed in MPM 30. The proposed route is within the existing railroad corridor and existing streets through the areas identified as freshwater marshes.

2-6 Comment accepted. Please see new material regarding the landfill and site remediation added to section 5.7.1.3.

2-7 Mojave intends to bore under Tunnel Road in order to connect to Beatty Avenue. Crossing Tunnel Road in this fashion minimizes ground disturbance.

2-8 As the Local Enforcement Agency, the County of San Mateo Department of Environmental Health would be consulted for details of the landfill, and a permit application would be filed. Mojave would comply fully with any construction requirements imposed by the county. The California Integrated Waste Management Board has no discretionary authority over the proposed project. See comment letter 50.

2-9 The proposed route does not use the Tunnel Road right-of-way. If the area in question is private property, Mojave would negotiate an easement with the landowner.

2-10 The EIR/EIS acknowledges that soil and groundwater contamination exists at various locations along the route. Table 4.3.1-3 lists the Hunters Point Segment from MP 5.0 to MP 30.0 as an area where numerous industrial sites with hydrocarbon or volatile organic compound contamination exist. Section 5.11.4 describes the General Contingency Plan that Mojave has prepared for areas where the potential for encountering contaminated soil or groundwater exists. In addition, ARM 46 requires that Mojave consult with appropriate agencies to determine which sites require further investigation and mitigation. Mojave would contact Cal-EPA's Department of Toxic Substances Control and the appropriate Regional Water Quality Control Board for the precise locations of contamination and the construction requirements in these areas.

2-11 The safety concerns relating to pipeline construction within a region that is potentially seismically active are addressed in section 5.1.2.2, and Map 32 in Volume II acknowledges that earthquake shaking, liquefaction, and settlement may be of concern on the Hunters Point Segment.

2-12 The scale of the map does not allow for detailed route placement. The route is within the railroad right-of-way through Brisbane until about MP 25.8 where it enters Beatty Avenue.

2-13 12. The underground pipeline could potentially conflict with existing utility lines within or adjacent to the proposed route, especially the pipelines associated with the SPPL tank farm adjacent to Tunnel Avenue.

The comments that immediately follow pertain the environmental issues raised by the project. The numbers correspond to the comments and corrections above.

2-14 1. Does the Pipeline have rights to use the railroad right-of-way or must these
rights be acquired? Could use of the right-of-way conflict with proposed projects,
2-15 such as the gauntlet track under consideration by the Port of San Francisco or
the Caltrain station shown in the 1994 Brisbane General Plan?

2-16 2. Much of the land adjacent to the railroad right-of-way is currently undeveloped. Could installation of the pipeline affect future land uses or the development potential of these properties?

2-17 3. What hazards would be posed by the pipeline to existing schools or other sensitive receptors?

2-18 4. Local studies will be necessary to determine the impacts of pipeline installation on sensitive habitats and protected species.

2-19 5. The route appears to run adjacent to the Brisbane Lagoon and through a number of drainage canals which serve to carry stormwater to the Bay. The EIR/EIS discusses, in a general way, potential impacts on sensitive habitats, but does not examine the effects of pipeline installation on local drainage facilities and contribution to flooding.

2-20 6. Excavation of refuse landfill raises issues of contamination, both of airborne and waterborne contaminants. There are also issues of odor and the handling, treatment and disposal of excavated materials.

2-21 7. In addition to the issues raised in #6, above, how would the pipeline connection to Beatty Road affect the development pattern of the affected private property?

2-22 8. The EIR/EIS does not address the environmental issues raised by placing gas pipelines in municipal waste landfill, which include subsidence, differential settlement, exposure to methane and underground fires.

2-23 9. Would installation of the pipeline impact areas of contamination or in any way affect remediation programs?

10. See comment #8, above.

2-24 11. More specific studies and mapping at a larger scale will be necessary to determine the route.

2-13 Mojave would conduct a detailed investigation of all subsurface utilities during its detailed design phase and would contact local planning departments and utility companies.

2-14 Mojave would negotiate easement agreements to use the railroad right-of-way as described in section 5.7.1.2.

2-15 According to Cliff Jerrard, Chief Engineer, Port of San Francisco, the gauntlet track project is no longer under consideration. According to Jim Dohart, Peninsula Corridor Joint Powers Board, a final location for the proposed CalTrain station in Brisbane has not been selected; the station will not be needed in the near future.

2-16 One benefit of routing the proposed pipeline within existing rights-of-way is avoiding or reducing effects on other land uses. The effects on currently undeveloped land are too speculative to be addressed in this document.

2-17 The U.S. Department of Transportation (DOT) has jurisdiction over the safety of natural gas pipelines and has established minimum safety standards for: (1) the materials used in pipelines; (2) the design of the various components of pipelines (e.g., valves, outlets, and compression stations); (3) construction methods; (4) corrosion control; (5) testing; (6) upgrading; (7) operations; and (8) maintenance (49 CFR 192). These standards are designed to become more stringent as population densities along a pipeline increase. In areas of greater population density, a pipeline must be designed for higher operating pressure, have more cover, be generally operated at lower operating pressures, and be patrolled more frequently to identify leaks and other factors that could affect safety and operation. In California, the California State Fire Marshal's (CSFM's) Pipeline Safety Division is responsible for ensuring that natural gas pipeline operators meet the DOT standards. We believe that the DOT standards are adequate with respect to design, construction, and operation for the public safety. Consequently, we believe the issue of safety along an existing or proposed pipeline route is not an issue that should influence the comparison of routes, i.e., a new pipeline on any route would meet all required safety standards, which would ensure adequate protection of the public.

2-18 Special status species surveys have been performed in areas where Mojave could obtain permission from landowners as discussed in section 4.6. ARM 39 further requires that Mojave complete all necessary surveys and propose mitigation to substantially avoid or reduce impact.

2-19 Comment noted. Mojave would restore drainages to preconstruction conditions so there would be no effect on flooding. See section 5.3.3.1 for further discussion of effects on floodplains.

2-20 San Mateo County's procedures would be used when excavating in this landfill. See response to comment 2-22.

2-21 An easement across the property would be the only known effect on its development.

(Responses to comments continued on next page)

2-25 12. An encroachment permit will be required to construct any pipeline in City streets. Depending on the route, other permits and/or agreements with the City may be necessary.

Attached is a copy of your Map 32 of 43, notated, and excerpts from City documents and records that support and further illustrate the comments in this letter. Please notify us of all meeting and public hearings on this project.

Sincerely,

CAROLE G. NELSON
Planning Director

cc: Mr. Michael Boyle, Federal Energy Regulatory Commission
Ms. Mary Griggs, California State Lands Commission
Mr. J. Kinzner, Director of Rail, Peninsula Corridor Joint Powers Board
State of California, Integrated Waste Management Board
Mr. Brian Zamora, County of San Mateo, Dept. of Environmental Health
Ms. Beth Bufton, Department of Toxic Substances Control
Mr. Mark Buell, Tuntex USA
Mr. Dail Miller, Sanitary Fill Company

2-22 Mojave proposes to use the railroad right-of-way adjacent to the Brisbane landfill. According to Southern Pacific, construction of the railroad right-of-way along the historic shoreline preceded the landfill, which was not permitted to encroach on the railroad right-of-way. The only area where construction would occur within the former landfill is at the crossing from Tunnel Road to Beatty Road. Tunnel Road would be crossed by boring and construction would be within the Beatty Road shoulder. This crossing would be constructed according to the procedures of the Local Enforcement Agency, the San Mateo County Health Services Agency. These procedures for excavation on Class III landfills require special handling and health and safety measures due to the potential presence of landfill gas or other hazardous materials that may be affected. They also specify requirements for disposal of excavated material and replacement of landfill covers or caps.

2-23 After review of more detailed maps provided by DTSC, we determined that Mojave's proposed route along the railroad right-of-way would not affect the remedial activities underway at this site because the groundwater extraction wells are located well away from the right-of-way. No contamination was found in wells near the right-of-way. One groundwater monitoring well may need to be relocated, which would be addressed in right-of-way easement negotiations.

2-24 During the detailed design phase of the project, additional studies of underground utilities, areas of soil and groundwater contamination, geologic hazards, etc., would be conducted. Alignment sheets and aerial photographs at a scale of 1:6,000 or larger would be prepared and would include this information.

2-25 The fact that cities may require encroachment or conditional use permits is identified in table 1.4-1, which has been amended to specifically include the City of Brisbane's required encroachment permit.

COUNTY OF SACRAMENTO
ENVIRONMENTAL MANAGEMENT DEPARTMENT
NORMAN D. COVELL, DIRECTOR

February 14, 1995

RECEIVED BY

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ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

Mr. Michael Boyle
Federal Energy Regulatory Commission
EIS Project Manager
Room 7312, 825 North Capitol Street NE
Washington, DC 20426

Subject: **MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT**
(SCH 94032040)

Dear Mr. Boyle:

Thank you for the opportunity to review the above-captioned document. The Sacramento Metropolitan Air Quality Management District of the Environmental Management Department has reviewed the Mojave Pipeline Northward Expansion project and offers the following comments.

AIR QUALITY MANAGEMENT

The District has developed guidelines for reviewing projects and programs which have evidently been used in the air quality analysis of this project. The guidelines are intended to ensure consistency with the requirements of the state and federal Clean Air Acts (CAA).

The District is satisfied that the document has addressed the operational impacts of the proposed project and that those impacts fall below our thresholds of significance level.

Sacramento is subject to transport of pollutants from San Joaquin and the Bay Area. Compliance with all permitting procedures from the appropriate agency will minimize the emissions which are transported into the Sacramento Valley.

Short-term construction impacts to VOCs and NOx also fall below our thresholds of significance level. However, to minimize cumulative impacts, we recommend that all mobile equipment be maintained in proper running order according to manufacturer's specifications.

While all feasible mitigations have been applied to minimize impacts to PM-10, the mitigations will not reduce construction impacts to less-than-significant.

Michael Boyle
Page 2
February 8, 1995

3-1 We recommend the following mitigation measure be added to the list of SMAQMD requirements:

> All mobile equipment shall be maintained in proper running order according to manufacturer's specifications.

Please be advised to send all environmental documents and public notices to Sue Jeffery, Environmental Coordinator. If you have any questions regarding the above comments, or if you require further assistance with Air Quality issues, please call Sue Jeffery at 916/386-7024.

Sincerely,

Nancy Ormandy

NANCY ORMANDY
Senior Air Quality Planner

cc: Les Ornelas, SMAQMD
Sue Jeffery, SMAQMD
Mary Griggs, EIR Project Manager
PR940075

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3-1 Thank you for your comment letter. This measure is listed in section 5.10.1.3.

Joseph J. Gilbeau
28315 Lunada Ridge Drive
Rancho Palos Verdes, CA 90245

February 16, 1995

California State Lands Commission
Environmental Project Manager
1807-13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

REF: Docket Nos. CP93-258-000, ET AL

SUBJECT: Comments on EIR/EIS

On February 7, 1995, I received Volume 1 & 2 of "DRAFT" Environmental Impact Report/Environmental Impact Statement.

Previously I had received "Notice of Preparation Intent to prepare a joint draft Environmental Impact Report/Statement for the proposed Mojave Northward Expansion Project and request for comments on Environmental issues (April 12, 1994)"

Earlier (probably in 1993) I received a phone call from Mojave that a proposed pipeline planned to go on the road near my property. I could not get an accurate location of the pipeline at that time.

4-1 The current draft (February, 1995) shows the Sacramento mainline going through my property between MP35 and MP40 on Map 23 of Sacramento mainline, the draft text indicates that part of the line will be on the powerline easement on my property - also part of the pipeline may cross my property before connecting to the easement. I wish to go on record now that the powerline easement is for a powerline only - not for roads, subways, waterways, aqueducts, underground phone lines, gasoline pipelines, oil pipelines, or gas pipelines.

4-1 Thank you for your comment. Mojave's proposed route would cross this property and follow the powerline easement as indicated in your letter; however, Mojave would acquire its own subsurface easement from the affected landowner.

California State Lands Commission
Environmental Project Manager
1807-13th Street
Sacramento, CA 95814

Page 2

4-2 Also installation of a pipeline must go through a levee protecting the land from flooding and
erosion from high velocity water from Dry Creek during high rainfall periods. Also putting
4-3 the pipeline only 3 feet below the creek bed is insufficient as erosion could "bare" the line
and cause eddies to damage the levee. This section of Dry Creek is changing each year - it
4-4 is not the original stream bed - the original steam bed is somewhat north of the levee and has
been partly plugged with trees and debris.

4-5 In addition, installation of a pipeline will disrupt normal farming operations - whoever is farming property must be contacted and compensated.

4-6 My property has previously been considered for a vineyard development - a vineyard joins my property on the north. When vineyard is planted in this area, practice has been to "rip" the soil to some depth - say 6 or 8 feet to prepare it for planting vineyard. This would require a lower position for the pipeline than planned.

Sincerely,

Joseph J. Gilbeau

Joseph J. Gilbeau

4-2 This subject is addressed in section 5.3.3.2, and specific mitigation for levees is included in MPM 26. The text in section 5.3.3.2 has been amended to clarify that the discussion includes both irrigation and flood control. The pipeline would cross through the levee mentioned, and care would be exercised during construction to restore the integrity of the levee.

4-3 The pipeline would be installed at least 5 feet below the creekbed to prevent erosion and other effects.

4-4 Comment noted. We will pass this information on to Mojave.

4-5 All landowners and tenants would be contacted during easement negotiations and compensated at fair market value for their losses.

4-6 Mojave is aware of the planting practices of vineyards and orchards and would install the pipeline deep enough to avoid impact on plantings in these areas.

PAVICH
Organically Grown

RECEIVED BY
MAR 03 1995
ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

February 18, 1995

Mr. Michael Boyle
Federal Energy Regulatory Commission
825 North Capitol St. NE, Room 7312
Washington, DC 20426

Dear Mr. Boyle,

I just received the EIR/EIS for the Mojave Northward Expansion Project. I am a landowner South of Bakersfield and I the current Mojave pipeline runs through my property.

5-1 It is not clear to me in reading the EIR/EIS whether I am in an area where the proposed pipeline will run adjacent to the existing pipeline. According to Figure ES-1 I cannot tell whether my property will be included in the proposed Loop 4 East Side Lateral. Could you please provide me with a detailed map of Loop 4?

I appreciate your attention to this matter.

Sincerely,

Thomas D. Pavich

PAVICH FAMILY FARMS
P.O. BOX 10420 TERRA BELLA, CA 93270 TEL: (209) 782-8700 FAX: (209) 782-1131

5-1 Thank you for your comment. The Pavich farm property is on a portion of Loop 4 that is no longer part of the currently proposed project. See section 2.1 for an explanation of the currently proposed route.

CITY OF SELMA
1814 TUCKER STREET • SELMA, CALIFORNIA 93662

February 21, 1995

RECEIVED BY

MAR 03 1995

ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

Ms. Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Washington, D.C. 20426

RE: Docket Nos. CP93-258-000, et al./CA State Clearinghouse No. 94032040

Dear Ms. Casheli:

The City of Selma has reviewed the draft environmental impact report/environmental impact statement for the Mojave Pipeline Northward Expansion Project dated February 1995 and has the following comments:

6-1 1. Significant traffic problems may occur in smaller cities due to the potential length of trenching. In addition to traffic congestion, there could be potential critical delays in emergency services where the proposed pipeline divides the community. Detailed construction phasing plans developed in coordination with local public safety officials should be developed for every community as a mitigation measure. (pg. 5-100)

2. We find the discussion and mitigation measures for potential impacts that the pipeline might have on the safety of the community inadequate for the following reasons:

6-2 a. The report does not address the extent of potential damage to property in the vicinity to the pipeline. (pg. 5-135 - 5-139)

6-3 b. The report indicates what special training fire departments will need in case of an emergency, but does not provide any mitigation for departments that are lacking some or all of the training. We suggest that the training be provided to local fire departments at Mojave's expense as a mitigation measure. (pg. 5-142)

6-4 c. The report indicates what equipment local fire departments will need in the case of an emergency, but does not provide any mitigation for fire departments that are lacking some or all of the equipment. We suggest that the equipment be provided to local fire departments at Mojave's expense as a mitigation measure. (pg. 5-142)

6-1 Thank you for your comments. It is certainly not our intention to minimize the importance of traffic problems in smaller cities. As discussed in section 5.7.2.2, Mojave would complete any open cut road crossings in one day, traffic would be controlled, and emergency services would be maintained during construction. Construction traffic control plans would be developed in coordination with public safety officials in each community.

6-2 As discussed in section 5.11.1, the proposed facilities would be designed, constructed, operated, and maintained in accordance with the DOT Minimum Safety Standards in Title 49, CFR, Part 192, which are intended to ensure adequate protection for the public from natural gas facility failures. The rate of pipeline failures is low, and it is not possible to accurately predict the extent of potential damage to property in the vicinity of a pipeline failure because it would depend on many variables such as the nature of the incident, the type of construction, the weather conditions, and time of day.

6-3 As discussed in section 5.11.3, Mojave would assist in training fire department personnel in cities and counties along the pipeline route in procedures to deal with high-pressure, natural gas pipeline emergencies (see also MPM 99.) As stated in DOT Minimum Federal Safety Standards in 49 CFR, Part 192, the pipeline operator is required to establish an emergency plan to minimize hazards in the event of a natural gas pipeline emergency and to establish and maintain liaison with appropriate fire, police, and public officials. It is beyond the jurisdiction of the Commission and the scope of the EIS to analyze the specific details of each emergency plan. This is an issue which must be discussed between each individual town, Mojave, and the appropriate DOT representative.

6-4 Local fire departments would be able to deal with high-pressure gas transmission pipeline emergencies using the same basic fire detection and suppression equipment they use in dealing with the more common emergencies involving their communities' natural gas delivery system.

6-5 d. The report relies exclusively on a 1993 report by the California State Fire Marshall indicating that there is not a correlation between pipeline incidents and proximity to rail lines. However, the potential for a railroad derailment or similar accident, and how it would impact or be impacted by the proposed pipeline is not addressed in the report. 6-6 Our Fire Department has grave concerns that the potential for a major catastrophe involving the proposed gas line, the existing high pressure liquid gas line and hazardous/toxic materials from overturned or ruptured train cars exists and is not adequately addressed in the report. (pg. 5-134)

6-7 3. The maps provided with the report are a vast improvement over the scoping maps, however, they are still at a scale which is unusable at a local level. Exact location in relation to streets, utilities, storm drainage and irrigation facilities, and specific land uses will be required during local CEQA evaluation. (Map 5 of 43)

6-8 4. Overall the level of detail of the environmental impact report is inadequate for use at the local level due to broad statements that do not take into account specific local conditions.

Thank you for the opportunity to comment on the draft document. We look forward to reviewing the final document.

Sincerely,

Charles Mariscal
Community Development Director

cc: Michael Boyle, EIS Project Manager
Mary Griggs, EIR Project Manager
Roy Peak, Selma Fire Chief

letters\pipe.eir

6-5 The EIR/EIS relied heavily but not exclusively on the CSFM's 1993 "Hazardous Liquid Pipeline Assessment" because it was commissioned by the state legislature explicitly to address various risk factors for pipelines in California, which, for the purposes of the study, also included natural gas pipelines adjacent to rail lines. Other data sources included the American Gas Association and the DOT. Pipeline safety is regulated by the DOT and CSFM (see response to comment 2-17). As discussed in section 5.11.2, reportable incidents by definition include both personal injury and property damage. Tables 5.11.2-1 and 5.11.2-2 show that the incident rate for natural gas pipelines is relatively low. It is not unusual for two pipelines to use the same or adjacent rights-of-way. The CSFM study concluded that the "likelihood of derailment resulting in pipeline rupture is extremely remote. Further, the frequency of leak incidents due to train derailments is the lowest of any cause included in the study." Section 5.11.3 describes the pipeline safety features that would be incorporated in the proposed project, which include burying the pipeline deeper than required within the railroad right-of-way.

6-6 We believe the consideration of a catastrophic failure involving the proposed natural gas pipeline, the existing high-pressure liquid gas pipeline, and hazardous/toxic materials spilled from overturned or ruptured train cars would be highly speculative and is beyond the scope of this EIR/EIS. Further information on this issue may be available at the DOT, which regulates pipeline safety. See response to comment 2-17.

6-7 Alignment sheets and aerial photographs at a scale of 1:6,000 or larger would be prepared during the detailed design phase of the project. The exact location of the pipeline with reference to streets, underground utilities, storm drainage, irrigation facilities, and specific land uses would be identified during Mojave's permit application process.

6-8 Comment noted. No response is required.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 95TH AIR BASE WING (AFMC)
EDWARDS AIR FORCE BASE, CALIFORNIA

24 FEB. 1995

RECEIVED BY
MAR 03 1995
ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

MEMORANDUM FOR FEDERAL ENERGY REGULATORY COMMISSION
ATTENTION: MR MICHAEL BOYLE
825 NORTH CAPITOL STREET NE, ROOM 7312
WASHINGTON DC 20426

FROM: 95 CIVIL ENGINEER GROUP
REAL ESTATE MANAGEMENT FLIGHT
225 NORTH ROSAMOND BLVD
EDWARDS AFB CA 93524-8540

SUBJECT: Comments on Draft Mojave Northward Expansion Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS)

7-1 1. The Edwards AFB Real Estate Management Flight's preliminary review of the draft EIR/EIS on the subject project appears to include land areas on the base proper. If the Common Line, Loop 3, is made part of the expansion project to accommodate the Kern River expansion, Mojave Pipeline Operating Company must secure an easement for the area on Edwards AFB from the Air Force if not covered by the current easement held by Mojave Pipeline. The Bureau of Land Management would be the lead agency to prepare the right-of-way.

2. Please forward a copy of the final EIR/EIS to the above address so that the real estate office can be informed on the direction the project will take. If you require any further information on real estate issues, please contact Ms Phyllis Miller, Real Estate Specialist, at (805) 277-3415 or Mr Steve Johnson, Bureau of Land Management, at (909) 697-5233.

John H. Morrill

JOHN H. MORRILL, Major, USAF
Commander, Civil Engineer Group

Attachment:
Map 41 of 43, Loop 3 Common Line

cc: **AFFTC/XPX** (Mr Bob Johnstone)
Bureau of Land Management
California Desert District
Attn: Mr Steve Johnson, Spec Proj Mgr
6221Box Springs Blvd
Riverside CA 92507-0714

7-1 Thank you for your comment letter. The stated assumption is correct. We will forward a copy of the final EIR/EIS as requested.

COMMENTS ON THE DEIR/DEIS-0086D FOR THE

MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT

VOLUME I, FEBRUARY, 1995

Specific Comment Area: The Need for Consideration of Potential Significant Adverse Impacts to Prime Farmland

Prepared By

Samuel M. McGinnis
9699 Melton Road
Manteca, CA 95337
(209) 599-2726

March 17, 1995

Introductory Comment

The United States is loosing approximately 1.4 million acres of productive farm land each year to various types of development (housing, commercial, roadways, pipelines, etc.). About half of this land is classified as prime farmland, acreage which has the best possible soils and climate for specific crops which cannot be grown successfully elsewhere in North America. Primary among these are fruit and nut crops which are very specific in their miroclimate and soil requirements. Thus whereas there are many areas in the nation where crops such as corn, oats, wheat, etc. can be grown successfully, there only a relatively few finite regions where an orchard crop such as almonds may be successfully produced. Unfortunately, such areas have been heavily impacted by various non-agricultural land changes in the past. A recent survey by the American Farmland Trust of 1,549 urban-edge counties across America shows that the lands in the path of such encroachment produce 87 percent of the nation's fruit and nut crops.

Attention to the preservation of prime agricultural land has become an important part of EIR/EIS reports, especially in the Central Valley of California. Unfortunately, this does not appear to be the case in the Mojave Pipeline DEIR/DEIS. While devoting 48 pages of main body text and another 44 pages of appendices to special status plant and animal species and their habitats, I can find only 22 lines given over to the general subjects of impacts and mitigations for agriculture lands and communities (Page 5-35; Page 5-87). This is not to say that legally protected endangered and threatened species should be ignored. However, I believe that an additional "threatened subspecies" - the small family farm and farmer - should at least be given comparable consideration. The following remarks are therefore directed to one sub-group in this category, the small, family owned and operated almond orchard farms in the West Ripon, California, area.

Potential Adverse Impacts to West Ripon Almond Orchards Which Will Result if the Tentative Route for the Eastern Portion of the RIPON SEGMENT of the Mojave Northward Expansion Project is Adapted.

POTENTIAL ADVERSE IMPACTS

The climatic and soil conditions in the greater Ripon, California, area combine to create a classic example of prime farmland, in this case for almonds, California's number one agricultural export. Unlike the massive agricultural holdings to the south, nearly all Ripon area almond orchards are in the form of small (20 to 40 acre) privately owned and operated family farms. Because of the intense nature of this type of farming, many of these families derive most if not all of their annual income from their almond crop.

The proposed northern route of the pipeline to Sacramento through the West Ripon Area passes along the shoulders of three county roads (Mohler, West Ripon, and Highland Roads, Figure 1), and assurance has already been given that this routing will avoid disruption to farming here (DEIR/DEIS: P.3-3, response to comment by H. Beck). Unfortunately, no such consideration appears to have been given to the route of the eastern portion of the **RIPON SEGMENT**, which is proposed to pass through a large block of small family owned almond orchards between Mohler Road and the junction of Perrin and Manteca Roads (Figure 1).

In this 3.5 mile long portion of the **RIPON SEGMENT**, only about 0.6 of a mile of pipeline would be positioned along the shoulder of a paved county road (Hutchinson Rd., between Austin Rd. and Fredrick Ave - Figure 1). The remaining length of nearly three miles would pass along dirt tracks between orchards and, in one area, along a one lane un-paved extension of Hutchinson Road. Upon first inspection such a proposed route, even through prime orchard country, may seem rather benign. However, when one considers the stated conditions of pipeline installation and protection, several serious adverse impacts are revealed.

Impact 1: Loss of Mature Tree Production for nearly a Decade along the Prescribed 65 foot wide Installation Pathway.

8-1 For the 20 inch diameter pipe which is used in this segment, the published installation procedures specifies a 65 foot installation pathway. Given that almond tree spacing varies from 15 to 20 feet, this could result in the loss of up to four tree rows for some family farms. For a forty acre farm, this would be in the neighborhood of 250 trees which would be out of mature production for 8 to 10 years.

8-2 Given that a mature almond tree produced on the average $30 worth of nuts each year, this amounts to a one year loss of $7,500 and a potential 8 to 10 year loss of $60,000 to $75,000 dollars. In the economics of the small family farm, such a loss can often be the difference between success and failure. If in addition the full-width topsoil stripping procedure described for agricultural land pipeline installation is used (Page 5-35, DEIR/DEIS), an additional 25 feet would be needed for installation. This would bring the annual monetary loss closer to $11,000 with a projected 8 year loss of over $80,000.

Impact 2: Permanent Loss of Almond Production along the Pipeline Pathway

8-3 The regulations for pipeline installation prohibit the replanting of trees along the 10 foot wide swath over the buried pipe. In most cases this would amount to the **PERMANENT** loss of one complete orchard row which, for the 40 acre farm example, would be about 63 trees. In monetary loss, this translates to an average of around $1,500 per year for the life of the family farm. Such a life span often goes well beyond that of the immediate owner in that these holdings are usually passed on to a son or daughter who continues to farm one of the few crops in this area which can fully support a small family farm - almonds. Therefore a two generation loss of $150,000 is more realistic.

8-1 Thank you for your comments. Except where no viable alternative is available, the route of the pipeline through orchards and vineyards would follow existing public roads, utility easements, or private field roads. Mojave would minimize impact to the almond orchards south of Hutchinson Road by requiring the construction contractor to restrict the construction right-of-way to 40 feet. This would limit tree removal to only one row.

8-2 Mojave has consulted appraisers regarding the value of commercial trees and vines and would pay orchard and vineyard owners for the projected loss of production (adjusted for present value) for the remaining life of trees or vines removed because of project construction. Provisions have been made to narrow the construction work space in orchard and vineyard areas to minimize damages. In all cases between Mohler and Manteca roads along the pipeline route, no more than one row of trees would be removed for construction. Following construction, Mojave would allow the replacement of trees up to within ten feet of the pipeline.

8-3 Under most conditions, Mojave would not allow the replanting of trees in a 10-foot-wide area over the pipeline; however, as stated in response to comment 8-1, the pipeline would be located in existing public roads, utility easements, or private field roads whenever possible.

Impact 3: Potential for Future Removal of Almond Trees for Pipeline Repair

8-4 The DEIR/DEIS is rather vague on this aspect of the pipeline operation, but given the published detailed of pipe installation, it appears that if a segment of line had to be dug up for repair, almond trees which had been replanted to one or both sides of the line would again be lost. The resulting loss of income would be similar to that projected for Impact 1.

IMPACT 4: Imposition of Increased Management Costs Resulting From the Need to Re-establish Almond Trees in an Established Orchard Setting

8-5 The DEIR/DEIS again appears to be deficient in its understanding of orchard management practices. Far beyond the simple purchase and planting of replacement trees is the time and management cost needed to adequately raise "re-plants" within a mature orchard setting. Problems with soil fumigation, custom watering and fertilization, the need for hand versus mechanical harvesting, etc., all join to make this a costly endeavor and a point which should be included in any right-of-way negotiation.

8-6 All of the above should be cited in the DEIR/DEIS as significant adverse impacts to the West Ripon family farm community

SUGGESTED MITIGATION MEASURE

In order to reduce these potential significant adverse impacts to an insignificant level, the following mitigation measure is suggested.

8-7 Suggested Mitigation for Impacts 1-4: Accord the small family almond farms in the West Ripon area the same consideration as that given those in the northwest area by utilizing the shoulder right-of-ways of wide, paved county roads for pipeline installation. Specifically, adapt a route for the eastern portion of the **RIPON SEGMENT** which would travel west along a shoulder right-of-way of West Ripon Road from its intersection with Mohler Road (Figure 1). This course should be followed to Manteca Road, then south a short ways along its wide shoulder right-of-way to Perrin Road, where the current proposed route would continue west as planned.

Adoption of this mitigation measure together with the current planned use of the Mohler Rd.- West Ripon Rd. - Highland Ave. right-of-ways would route the new pipeline through the entire Ripon family almond farm community with no significant adverse impact to the prime farmland and country residents which have made this region the "Almond Capital of the World".

8-4 Mojave would be responsible for the payment of all damages resulting from maintenance of its facilities.

8-5 Comment accepted. See changes to section 5.7.1.2, which has been expanded to include the stated impact. The process of acquiring permanent right-of-way easements is described at the end of section 5.7.1.2, and landowners would have an opportunity to address these concerns during right-of-way negotiations. Mojave would have agricultural consultants available during negotiations with property owners and tenants.

8-6 We disagree with your conclusions. Landowners would have the opportunity to address these additional management costs during easement negotiations. We believe that implementation of the FERC's Upland Erosion Control, Revegetation, and Maintenance Plan (appendix A) in conjunction with our recommended mitigation and Mojave's proposed mitigation measures would minimize impact on the West Ripon family farm community.

8-7 In response to your concerns, we evaluated the suggested variation; the details of the analysis are presented in section 3.4. We concluded that it would adversely affect many more residences than the proposed route. See section 6.4 for further discussion of our analysis and recommended mitigation.

EXTERNAL AFFAIRS

ASSOCIATED
PUBLIC FILE
CP93-258

Central Contra Costa Sanitary District

5019 Imhoff Place, Martinez, California 94553-4392 (510) 228-9500 • FAX: (510) 676-7211

95 FEB 16 AM 11: 24

REGULATORY COMMISSION

January 30, 1995

ROGER J. DOLAN
General Manager
Chief Engineer

KENTON L. ALM
Counsel for the District
(510) 938-1430

JOYCE E. MURPHY
Secretary of the District

Elizabeth Anne Moler, Chair
Federal Energy Regulatory Commission
Room 9000
825 North Capitol Street, N.E.
Washington, D.C. 20426

RE: Mojave Pipeline Company 93 —
FERC Docket No. CP9~~2~~-258-000
(Northward Expansion in California)

Dear Chair Moler:

I am writing this letter on behalf of Central Contra Costa Sanitary District (CCCSD). In September 1994, CCCSD entered into a long-term natural gas transportation contract with Mojave Pipeline Company for service on its proposed Northwest Expansion Project. CCCSD is a regional special district engaged in the collection and treatment of domestic and commercial wastewater, and serves a population of nearly 400,000 in the Diablo, San Ramon, and LaMorinda Valleys east of Oakland, California. We require firm, competitively priced natural gas to fuel our steam boilers, co-generation facility, and sewage sludge incinerators (with heat recovery boilers).

CCCSD has been closely monitoring the progress of Mojave's FERC filings and is disappointed at the slow pace of the proceedings. As you are aware, Mojave originally filed its Application for a Certificate of Public Convenience and Necessity two years ago. In February 1994, the FERC issued its Order assuming jurisdiction and, at that time, indicated it would soon issue a Preliminary Determination. Now, a year later, a Preliminary Determination has been issued, but is consumed with a number of problematic issues that place the economics of Mojave's Northward Expansion Project in jeopardy. CCCSD is concerned that California may end up without a competitive alternate to Pacific Gas & Electric (PG&E).

Furthermore, CCCSD is concerned that the FERC has failed to recognize the benefits and risks that Mojave has agreed to undertake in constructing its Northward Expansion. Our contract with Mojave offers both a long term competitive rate and a predetermined escalation factor, something our local utility would not offer.

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FERC DOCKETED
FEB 16 1995

Recycled Paper 9502280315

9-1 CCCSD and the customers we serve will benefit from this pipeline expansion project if requirements that overly restrict competition are not imposed on Mojave. CCCSD strongly supports Mojave's Northward Expansion and hereby recommends that the FERC provide Mojave with prompt approval of its request to use cost based, market adjusted rates which will permit Mojave to move forward with its Northward Expansion Project.

Sincerely,

Roger J. Dolan

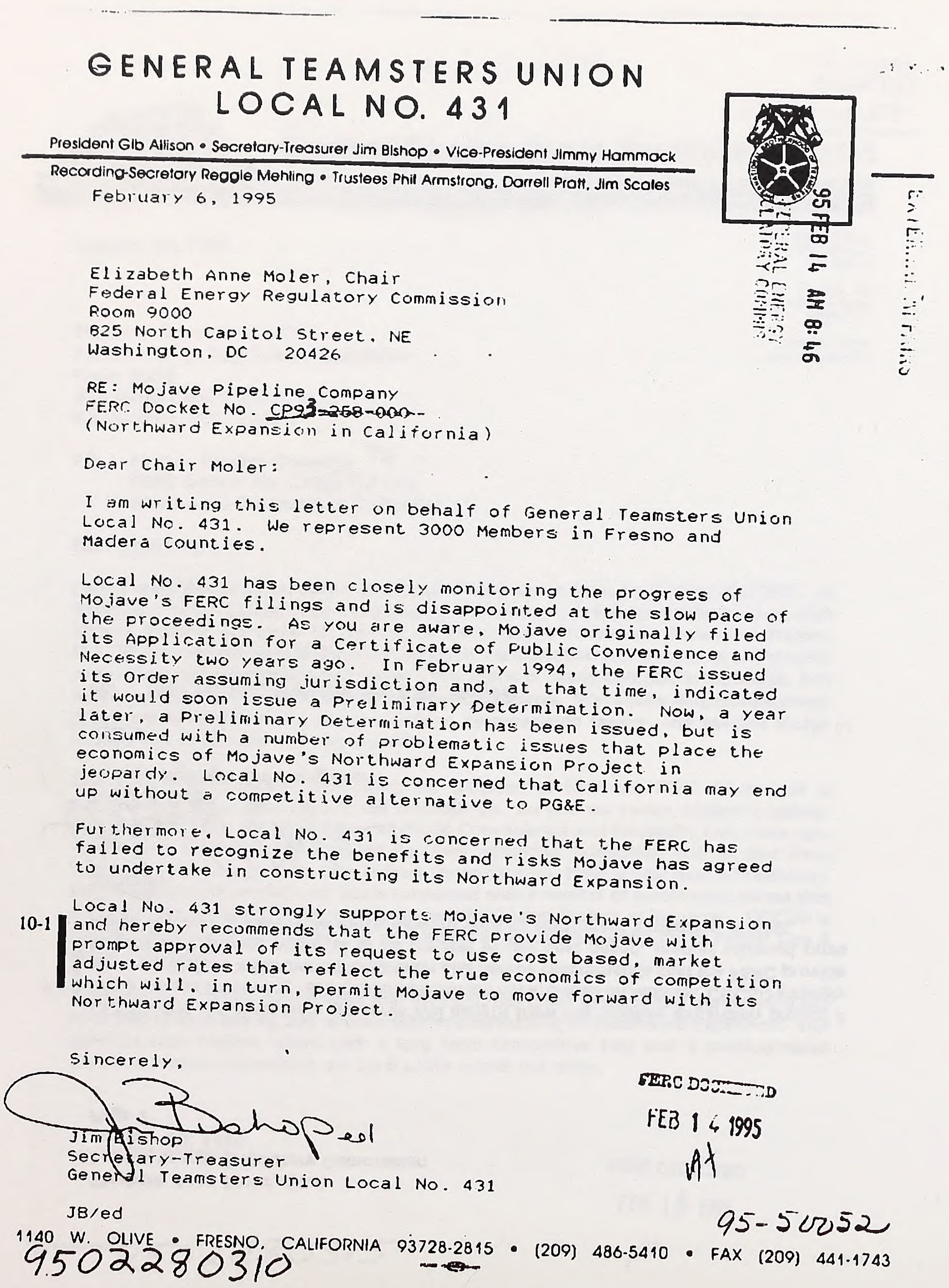
Roger J. Dolan
General Manager-Chief Engineer

RJD:bl

cc: Mike Holland, President and CEO, Mojave

C:\WPDOCS\RJD\MOJAVE.LTR

9-1 Thank you for your letter.



GENERAL TEAMSTERS UNION
LOCAL NO. 431

President Gib Allison • Secretary-Treasurer Jim Bishop • Vice-President Jimmy Hammack
Recording-Secretary Reggie Mehling • Trustees Phil Armstrong, Darrell Pratt, Jim Scales

95 FEB 14 AM 8:46
FEDERAL ENERGY
REGULATORY COMMISS

EXTERNAL AFFAIRS

February 6, 1995

Elizabeth Anne Moler, Chair
Federal Energy Regulatory Commission
Room 9000
825 North Capitol Street, NE
Washington, DC 20426

RE: Mojave Pipeline Company
FERC Docket No. CP93~~-258-000~~
(Northward Expansion in California)

Dear Chair Moler:

I am writing this letter on behalf of General Teamsters Union Local No. 431. We represent 3000 Members in Fresno and Madera Counties.

Local No. 431 has been closely monitoring the progress of Mojave's FERC filings and is disappointed at the slow pace of the proceedings. As you are aware, Mojave originally filed its Application for a Certificate of Public Convenience and Necessity two years ago. In February 1994, the FERC issued its Order assuming jurisdiction and, at that time, indicated it would soon issue a Preliminary Determination. Now, a year later, a Preliminary Determination has been issued, but is consumed with a number of problematic issues that place the economics of Mojave's Northward Expansion Project in jeopardy. Local No. 431 is concerned that California may end up without a competitive alternative to PG&E.

Furthermore, Local No. 431 is concerned that the FERC has failed to recognize the benefits and risks Mojave has agreed to undertake in constructing its Northward Expansion.

10-1 Local No. 431 strongly supports Mojave's Northward Expansion and hereby recommends that the FERC provide Mojave with prompt approval of its request to use cost based, market adjusted rates that reflect the true economics of competition which will, in turn, permit Mojave to move forward with its Northward Expansion Project.

Sincerely,

J Bishop ed

Jim Bishop
Secretary-Treasurer
General Teamsters Union Local No. 431

FERC DOCKETED
FEB 14 1995
At

JB/ed

95-50052

1140 W. OLIVE • FRESNO, CALIFORNIA 93728-2815 • (209) 486-5410 • FAX (209) 441-1743

9502280310

10-1 Thank you for your letter.

RECEIVED MAR 1 6 1995

ELK GROVE COMMUNITY SERVICES DISTRICT
DEPARTMENT OF PARKS & RECREATION
10519 E. Stockton Blvd., Suite 100
Elk Grove, CA 95624
(916) 685-3917
(916) 685-6942 (FAX)

March 8, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capital Street,NE.
Washington, D.C. 20426

California State Lands Commission
1807 13th. St.
Sacramento, Calif.95814
Att. Mary Griggs

Re: Docket Nos. CP93-258-000,et al

To Whom It May Concern:

I am writing in response to the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) regarding the Mojave Pipeline Northward Expansion Project. Up until this point in time Elk Grove Community Service District has not been aware of this project or included in the environmental review process. After reviewing first the executive summary for the EIR/EIS and then the draft EIR/EIS for the Mojave Project the Elk Grove Community Service District offers the following comments.

Part of this project will be located within the boundaries of the Elk Grove Community Services District which is located within Sacramento County. It is the C.S.D. responsibility to provide Parks, Recreation and Fire Services to the 53,000 residents within our jurisdiction which covers approximately 130 sq. miles.

11-1 Enclosed for your review and information is a district map that identifies the locations of our parks and a preliminary draft of a trails map that identifies trails along our creeks. How this pipeline will effect our parks, environmentally sensitive lands along our creek systems, which includes trails, and how will landscape corridors along major thoroughfares, which is the responsibility of the District be effected is our question? How these facilities will be effected and what type of mitigation measures will be taken to offset the impact of the project needs to be addressed in the final EIR/EIS.

I appreciate the opportunity to comment on this project. If you have any questions don't hesitate to call.

Sincerely,

Patrice D. Cox

Patrice D. Cox
Special Projects Manager

Member: *California Fire Chiefs Association*
California Park and Recreation Society
California Special Districts Association
International Association of Fire Chiefs
National Recreation and Parks Association

11-1 Thank you for your comment letter. The Sacramento Mainline enters the Elk Grove Community Services District at MP 52.5 just west of the crossings of the Consumnes River and Deer Creek and stays within the District to its terminus. Except for 0.2 mile near the western end of Sheldon Road, the pipeline would be constructed in either railroad or roadway rights-of-way within the District jurisdiction. Mojave would need to obtain an encroachment permit from the District for construction within roadways maintained by the District. The encroachment permit should identify the landscaped corridors along affected roadways that the District is responsible for maintaining. Table 1.4-1 has been updated to include this permit. The District has also proposed recreational trails that cross Sheldon Road in the vicinity of Bruceville Road (MP 60.0 to MP 60.5). Section 5.7.3.2 describes mitigation measures for crossing existing recreational trails.

WENTE BROS.
Fine Wines Since 1883

March 8, 1995

Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

RE: Docket Nos. CP93-258-000 et al

Dear Ms. Cashell,

Wente Bros. would like to offer comments on the draft EIR/EIS, however the following items regarding the proposed route need to be discussed in order to clarify exactly where the impacts we might comment on exist. If these are considered minor route variations, then only very general comments can be realistic, and we will submit a few of those.

1. Upon receiving the draft EIR/EIS we found the routing of the Palo Alto section to be substantially different than the proposed route and an alternative route that had been discussed with Mojave officials Bill Bauer and Dennis Needham at Wente Bros. offices on 1-5-95. The route shown in the EIR was not presented by Mojave or discussed in its published form at this meeting.

2. Subsequently, at the public hearing on 2-28-95, before the hearing commenced, we were informed by the same Mojave officials that the route shown in the EIR/EIS might be changed again to accommodate additional concerns, and that there had been a misunderstanding regarding local property owners input on a preferred routing.

3. I subsequently testified that it was difficult to comment on the impact of the routing if the final routing was not determined before the final EIR/EIS was published, and asked, would the comment period be held open until the final routing was determined?

4. After the hearing ended in the multipurpose room of Junction Ave. school, a breif discussion was held in the rear of the hearing room, where the maps were located, between Mojave officials, Bill Bauer, Dennis Needham, and several others, Michael Boyle, of FERC, Jim Sheidenberger, Charles Crohare, Hans Zumbach, and myself, all property owners being impacted by the draft EIR/EIS route, and Doug Bell, General Manager, Livermore Area Recreation and Park District, also being impacted. Bill Bauer asked Michael Boyle if the route was moved to public street right of ways, would a new set of hearings need to be held? Michael Boyle answered, only if the potential impact on the environment would be substantially (?) different, or the route impacted new property not previously notified in this process. The general conclusion was that the pipeline installed beneath asphalt in the County Road right-of-way would not alter either of these issues, in fact it would lessen the

5565 TESLA ROAD LIVERMORE, CALIFORNIA 94550 U.S.A. (510) 447-3603 FAX (510) 447-2972
VINEYARDS & WINERY BONDED WINERY NO. 893

environmental impact. The Mojave officials then requested that the prefered route discussed between the above parties at the meeting of 1-5-95 at Wente Bros. conference room be clarified again on the maps present that evening (2-28-95). This was done and both Michael Boyle and Mojave noted this route on their respective copies of the Palo Alto segment maps, pages 41 and 41.1. Attached is a map showing this route as well.

5. The preferred route discused that evening would bring the pipeline south along Greenville Road to Tesla Road, then west on Tesla to Wente Street, south on Wente to Marina Ave., west on Marina to Arroyo Road, south on Arroyo to Wetmore Road, west on Wetmore to Vallecitos Road, then south westerly on Vallecitos out of the Livermore Valley. Subsequently, on 3-2-95, Dennis Needham of Mojave called to reconfirm the discussed route of 2-28-95, and then indicated that Mojave wished to alter the easterly portion of the route to avoid a fault at Greenville and Tesla Roads. The new proposal would bring the route west past Greenville Road on Paterson Pass Road to Vasco Road and then south to Tesla Road on Vasco Road, and then resume the previously described route heading west on Tesla. This is acceptable to Wente Bros.

6. Since every conversation regarding the potential routing of this pipeline has resulted in mysteriously different routing than
12-1 that discussed, I have little ablilty to predict where the "final" route will exist, and therefore I will attach two pages of "general" comments on the EIR/EIS. Thank you for your time and consideration of my comments.

Sincerely,

Philip R. Wente
Executive Vice President

cc: Michael Boyle, FERC
Mary Griggs, CSLC
Doug Bell, LARPD
Charles Crohare
James Sheidenberger
Hans Zumbach
Rick Corbett
Mike Gatzman
Jack McKissack
William Bauer, Mojave
Dennis Needham, Mojave

12-1 Thank you for your letter. The referenced two pages of "general comments" were not attached to your letter, and a call to your office did not produce them. Because the Oakland Segment has been eliminated from the project, pipeline construction through Livermore would be reduced. As a result of public comment, Mojave developed a minor variation that would construct the route primarily within road rights-of-way through Livermore and we have recommended its adoption. See section 3.4 for a description of the Livermore/Roadway Variation and section 6.4 for our conclusions.

TRANSPORTATION MANAGEMENT DEPARTMENT
CRAIG M. POPE, P.E., Director
2700 "M" STREET, SUITE 400
BAKERSFIELD, CA 93301
Phone: (805) 861-2481
FAX: (805) 324-1715

RESOURCE MANAGEMENT AGENCY
JOEL HEINRICHS, AGENCY DIRECTOR
Air Pollution Control District
Engineering & Survey Services Department
Planning Department
Transportation Management Department
Waste Management Department

March 1, 1995

California State Lands Commission
Attn: Mary Griggs
1807 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

Re: 7-8.1 Draft Environmental Impact Report/Statement, Mojave Northward Expansion Project

Thank you for the opportunity to comment on the above noted project. Mojave Pipeline Operating Company proposes to expand its existing pipeline system to serve customers in the San Joaquin Valley and elsewhere. The Executive Summary of the EIR/EIR indicates that construction will require placement of the pipeline across several existing roadways in Kern County and proposes to complete any open-cut crossings
13-1 in one day. Any work with the rights-of-way under Kern County jurisdiction will require an encroachment permit be secured from this Department. Should you need any information on this permit process, please contact Don Turkal of this Office at (805) 861-2481.

We have no other comments at this time.

Should you have any other questions regarding these comments, please contact me at the same telephone number.

Very truly yours,

Fred Simon

Fred Simon,
Principal Planner

FS:ab
L7.D82
cc: Federal Energy Regulatory Commission
Attn: Michael Boyle
825 North Capitol Street NE, Room 7312
Washington, DC 20426

DT

PRINTED ON RECYCLED PAPER

13-1 Thank you for your comment letter. We will pass this information along to Mojave. We have added section 2.4.3 to clarify utility crossing construction procedures.

Southern California Edison Company
1305 E. NOBLE AVENUE
VISALIA, CALIFORNIA 93292

NORTHERN REGION
LAND SERVICES DIVISION
REAL PROPERTIES AND ADMINISTRATIVE SERVICES

February 28, 1995

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Attn: Ms. Mary Griggs
Environmental Project Manager

Gentlemen:

SUBJECT: Docket Nos. CP93-258-000, et al
Mojave Pipeline Project

The Southern California Edison Company ("Edison") appreciates the opportunity to review the above project. Our review reveals that the pipeline project will impact Edison's distribution and transmission facilities at several locations covering several counties. In addition to providing unrestricted access to the distribution/transmission facilities, there are other restrictions which could affect the development of a portion of the pipeline project under and/or near the Edison facilities.

14-1 While Edison does not oppose the proposed project requested under this application, Edison is concerned that any related development could impact the operation and maintenance of the distribution/transmission facilities. Consequently, Edison respectfully requests that prior to final approval of the proposed pipeline project, that the owner(s) of the pipeline project provide Edison with tentative and final construction plans showing all of Edison's facilities impacted by the proposed pipeline in order that Edison may make a determination, on the strength of such plans, that the proposed project will not unreasonably interfere with Edison's operation, maintenance and related land rights.

In addition, this letter should not be construed as a subordination of Edison's rights, title and interest in the distribution/transmission facilities or land rights, nor should this letter be construed as a waiver of any of the provisions contained in the land rights or a waiver of costs of relocation of any affected distribution/transmission facilities.

14-1 Thank you for your comment letter. We will pass this request along to Mojave.

Thank you again for the opportunity to review this proposed project and if additional information is required with respect to the above, please contact me directly at the above address or call me at (209) 685-3792.

Sincerely,

Ed Goodyear

ED GOODYEAR
Real Properties Agent

EG:sah

IONE BAND OF MIWOK

TRIBAL OFFICE OF HISTORIC PRESERVATION

an Villa
Director

Mike Garner
Historic
Preservation
Officer

Kathy Ramey
Deputy Director,
Administration

Charles Peone, Jr.
Engineering

Allogan Slagle, JD
Historian,
Geneologist

Reservation Office
2919 Jackson
Valley Road
Ione, CA 95640

Mailing Address
P.O. Box 1152
CA 95640

phone
209-274-2920

FAX
209-274-9401

RECEIVED BY
MAR 0 7 1995
ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

Mr. Michael Boyle
Federal Energy Regulatory Commission
Environmental Project Manager
Office of Pipeline Regulation, Room 7312
825 North Capitol Street, NE
Washington, D.C. 20426

Re: Docket Nos. CP93-258-000, et al

Dear Mr. Boyle:

The Tribe would like to thank you and your archaeologist for the time you took to listen to our concerns. We apologize for not being able to attend any of the public meetings you have had over the past week. The type of issues we are in discussion with you are generally not for public comment and discussion due to the sensitive nature of the issues.

This Tribe is historically from the Central California region. The language which this Tribe speaks is more than 2000 years older than any of the other Indian tribes or persons you have contacted within the aboriginal territory of this Tribe. That territory extends from your overview of proposed routes to serve various customer groups Figure 2.2-1 at the MADERA SEGMENT north including all segments leading through the SACRAMENTO SEGMENT west to SAN FRANCISCO SEGMENT, OAKLAND SEGMENT and ANTIOCH SEGMENT. This Tribe is the ONLY federally recognized tribe in those regions.

Since your agency is the lead agency and federal dollars are being spent to license this project, tribal law and federal law come into place. Therefore; federal and tribal law applicable to the licensing process will apply. The laws include the protection of the religious, archaeological and burial rights of this federally recognized tribal sovereign government.

The Tribe is requesting that all persons alleging to be Indian or Indian tribes, bands or groups submit a request to this Tribal government to participate in the project. The
15-1 Tribe insist on the enforcement of the protection of the known archaeological site information being made available within the defined territory only be made available to this Tribe and persons it designates.

15-2 The Tribe request your assistance in the development of a MEMORANDUM OF UNDERSTAND OR AGREEMENT between the Tribe and principals developing the pipeline project within the aboriginal territory of the Tribe. Once that is in place, the

---

15-1 Thank you for your comment letter. We consider site-specific information concerning the location of cultural resources to be extremely sensitive; therefore, we will only provide this information to agencies such as the SHPO, ACHP, and federal and state land management agencies that are involved in the Section 106 permit process. Dissemination of site-specific information to the general public carries with it the potential for disturbance and looting of cultural resources.

15-2 The FERC has directed Mojave to consult with the Ione Band of Miwok in order to reach an understanding or agreement.

Tribe will consider requests from persons who are members of non-recognized tribal groups and other individuals alleging Indian determination for the regions in question.

The Tribe has been in an ongoing battle with the Native American Heritage Commission with regards to this very issue at Los Vaqueros Dam Project. The most recent written correspondence between the Tribe and the State is enclosed. As you will see, the State of California's policy does not acknowledge the rights of federally recognized Tribes. We are eagerly awaiting the response from the State Attorney General's office with an official position. The Tribal Attorney will then respond on behalf of the Tribe.

The only member of the Tribe appearing on the list of persons contacted by the project with the 'annointment of power' from the State of California Native American Heritage Commission appears on page 4-133, Volume I, Draft EIR, Nicolas Villa, Jr. Cheif/Chairman of the federally recognized entity appearing in the Federal Register, Feb. 1995, Ione Band of Miwok Indians. All other persons listed in the draft EIR document on this project do not appear on the official tribal rolls.

We have reviewed segments of the proposed project. We are pleased to see that your agency is proposing the pipeline not pass through the Los Vaqueros dam region. That area is a sacred power site and major burial area of this Tribe. We have noticed that the flicker bird has not been considered as a protected species on this project. That bird is one of our most sacred birds. The feathers from that bird are used in our religious ceremonies. We have noticed a significant loss of their numbers over the past five years. That issue should be addressed further in the EIR. 15-3

The Tribe is officially requesting a copy of the confidential archaeological information gathered to date on this project. Please do not provide that document to any unauthorized persons.

We are looking forward to working with your agency and the principals in this pipeline project.

Respectfully,

Joan Villa

Joan Villa
Director
Tribal Office of Historic Preservation

15-3 Because the common flicker is neither a federal or state species of concern, it was not included in special status species surveys; however, under CEQA, it is afforded the same protection as all wildlife, and all of the general mitigation designed to reduce or eliminate impact on wildlife and habitat would also protect the flicker. Impact on this habitat has been minimized through carefully chosen route alignments; therefore, we believe Mojave's proposed mitigation and the FERC and SLC staffs' recommended mitigation are sufficient to minimize impact on this species.

Goble Properties

February 24, 1995

Ms. Mary Griggs
California State Lands Commission
1807-13th Street
Sacramento, CA 95814
(916)322-0354

Re: Mohave Northward Expansion Project

Dear Ms. Griggs,

16-1 Thank you for sending us the information regarding the proposed Expansion Project in our area. This gas line may impact several of our properties. We have buildings in Sunol, Milpitas, Fremont, and San Jose.

We would like to get some more detailed information on the sites so that we can get a clearer idea of how the properties will be affected.

Thank you for your time.

Sincerely,

Debra Yegge

Debra Yegge
Goble Properties
Office Manager

1650 Zanker Road - Suite 100, San Jose, CA 95112-1115 • (408) 436-8386

16-1 Thank you for your comment letter. We will pass this request on to Mojave.

Sheriff's Department

P.O. BOX 858 / 1100 "I" STREET
MODESTO, CALIFORNIA 95354
TELEPHONE (209) 525-6456

STANISLAUS COUNTY

LES WEIDMAN
SHERIFF - CORONER
PUBLIC ADMINISTRATOR

February 16, 1995

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 - 13th Street
Sacramento, CA 95814

ENVIRONMENTAL COMMENTS

RE: ENVIRONMENTAL REFERRALS -
MOJAVE PIPELINE NORTHWARD EXPANSION
PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT/
ENVIRONMENTAL IMPACT STATEMENT

17-1 Based on this agency's particular field of expertise, our position is neutral and we offer no comments.

Response prepared by:

Pat Glattke

Pat Glattke
Business Manager

cc: Bob Kachel, Stanislaus County Planning

"KEEPING THE PEACE SINCE 1854"

17-1 Thank you for your comment letter.

PORTERVILLE
The Good Life

Department of Community Development & Services

Michael R. Unser
Director
(209) 782-7460

February 27, 1995

Ms. Mary Griggs
California State Lands Commission
Environmental Projects Manager
1807 13th Street
Sacramento, CA 95814

Re: Mojave Pipeline Northward Expansion Project (EIR/EIS)

The City of Porterville has reviewed the above-referenced EIR/EIS, particularly the segment known as the Lindsay Alternative, the portion that directly affects the City, and offers the following comments:

1. City Staff has no fundamental objections to the Lindsay Alternative pipeline alignment. However, staff believes that the alignment was based on incomplete information, as outlined below. Therefore, it is felt that the recommendations submitted herein, if opted for, would benefit the pipeline developers and City alike, and would lessen disruption of existing facilities in the City.

18-1 2. It appears that Map No. 17 of 43 of Volume II: Maps, is outdated and does not reflect current conditions in the City of Porterville. We are submitting an updated City map with the Lindsay Alternative alignment plotted on it so you can see the additional development that has occurred since your original base map was created.

As evident from the map, the rather large amount of development that has occurred along the portion of the Lindsay Alternative alignment within the City of Porterville, would most likely serve to inflate the costs of this portion of the project, not only monetarily but also logistically.

Engineering (209) 782-7462
Planning (209) 782-7460
Building (209) 782-7480
Field Services (209) 782-7514
Redevelopment (209) 782-7460

291 N. Main St., P.O. Box 432, Porterville, CA 93258 FAX (209) 781-6437

18-1 Thank you for this information.

18-2 3. The alignment proposed for the Lindsay Alternative is along the prolongation of Westwood Street from well south of the Porterville Airport, through the City, across the Friant Kern Canal and northward. Apparently the westerly jog in the alignment along Olive Avenue and back again along Henderson Avenue, was included to circumvent the perceived existing development west of Westwood Street between Olive and Henderson Avenues. If this is the case, then it may be reasonable to consider modifying the alignment even further by jogging to the west earlier, at Tea Pot Dome Avenue, along the southerly boundary of the Municipal Airport, across the Friant Kern Canal, and then northward, beyond the City's development boundaries, to a point determined by your forces (see marked up copy of map 17 of 43).

This would serve to allow the pipeline to be laid in an alignment that is, practically speaking, along undeveloped land rather than within Westwood Street, one of Porterville's most rapidly developing thoroughfares. It would also result in crossing the Friant Kern Canal at a more acute angle than otherwise, according to the base map. Also, if concern for public safety is a potential issue relevant to the pipeline construction and operation, the more westerly alignment would possibly mitigate such concern.

18-3 4. According to Section 5.11.1 "Safety Standards", the proposed facilities would be designed, constructed, operated and maintained in accordance with Department of Transportation (DOT) Minimum Federal Safety Standards in Title 49, CFR, Part 192. The standards are intended to ensure adequate protection for the public from natural gas facility failures. Part 192 defines area classifications on the basis of population density in the vicinity of the pipeline, which determines the level of safety requirements for populated areas. The classifications are based on an area that extends 220 yards from centerline of any continuous 1-mile length of pipeline (the four classifications are defined below). Under such a classification system, the portions of the Lindsay Alternative alignment, south of Olive Avenue and north of Henderson Avenue, would both be rated as Class 3 locations (see enclosed map).

18-2 The purpose of the westward jog at Olive Street is to avoid crossing the Burton School grounds at the corner of Westwood Street and Morton Avenue.

18-3 Thank you for this information; we will pass it on to Mojave for use in the design of the pipeline system.

Class 1 - Location with 10 or fewer buildings intended for human occupancy

Class 2 - Location with more than 10 but less than 46 buildings intended for human occupancy

Class 3 - Location with 46 or more buildings intended for human occupancy or where the pipeline lies within 100 yards of any building or small; well-defined outside area occupied by 20 or more people during normal use

Class 4 - Location where buildings with four or more stories above ground are prevalent

18-4 5. Concerning the Porterville Municipal Airport property, there
exists a 47-acre race track and grandstand facility to accommodate
approximately 7,000 spectators and participants, and a 40-acre
industrial park along the airport property's westerly boundary, as
well as the City of Porterville Police Department's shooting
facility, west of the Westwood Street prolongation (see attached
map). While none of these facilities would directly be impacted by
the pipeline, there does exist the possibility that a public safety
issue associated with the uses, particularly the race track and the
shooting facility, could arise. Please note that the entire 805±
18-5 acre municipal airport site through which the pipeline is proposed
to traverse is subject to the Section 7a Biological Opinion
rendered by the USFWS for the San Joaquin Kit Fox included in the
enclosed Final EIR prepared for the Airport Master Plan.

With the exception of the recommended route change, City staff concurs with the bulk of the Environmental Impact Report and feel that if the proposed project is constructed and operated in accordance with the mitigation measures recommended, that it will be an environmentally viable action. Further, the minor nature of the route change recommended when compared to the project as a whole, should not result in any substantial modification to the project's implementation and/or operation.

18-4 The racetrack included in the Porterville Master Plan EIR has been added to table 4.7.3.1 (MP 46.4 to MP 46.7 on the North Mainline).

18-5 Comment noted. No response is required.

The City of Porterville appreciates the opportunity to comment on the proposal. If you have any questions please contact us at your convenience.

Cordially,

Robert J. Casias, AICP
Associate Planner

RJC:dld
Enclosure
cc: C. G. Huffaker, City Manager
City of Lindsay
County of Tulare

RECEIVED MAR 1 6

CITY OF SAN CARLOS

CITY HALL
666 ELM STREET
SAN CARLOS, CALIFORNIA 94070

PLANNING
DEPARTMENT
666 ELM STREET
SAN CARLOS, CALIFORNIA 94070
TELEPHONE (415) 802-4263
FAX (415) 595-2044

March 13, 1995

California State Lands Commission
Attention: Mrs. Mary Griggs
1807 - 13th Street
Sacramento, CA 95814

Reference: Docket No. CP93-258-000 et al.

Thank you for allowing the City of San Carlos to review the Mojave Pipeline Northward Expansion Project Draft EIR/EIS, dated February 1995.

On page 3-25 of that document, the authors correctly describe that the City of San Carlos is concerned about disturbance of the City Transportation Grade Separation Project in progress. 19-1 After further review with the City Engineer, it has been determined that the proposed rerouting west of the railroad tracks in the 40 - 55 foot wide area between the railroad and El Camino Real would not be appropriate. Significant drainage structures have been constructed in this area which would preclude location of the pipeline. Consequently, it is recommended that the alternative suggested in the report of aligning the pipeline to the east side of Old County Road would be the most feasible location. However, it should be noted that a number of utilities already exist in Old County Road and avoidance of these will be necessary.

Thank you for allowing us to comment on the draft EIR/EIS.

Very truly yours,
Neal J. Martin
Neal J. Martin
Planning Director

cc: Office of the Secretary
Federal Energy Regulatory Commission
Attention: Mr. Michael Boyle
825 North Capitol Street, NE
Washington, DC 20426

NJM/cc

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19-1 Thank you for your comment. We have incorporated your conclusion in new material added to section 3.4.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TRANSPORTATION
BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

March 10, 1995

Docket Nos. CP93-258-000, et al.
SCH94032040
REG200

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 - 13th Street
Sacramento, CA 95814

Re: **Draft Environmental Impact Report/Statement (DEIR/EIS): Mojave Northward Expansion Project. Project proposes to expand its existing pipeline system to deliver 475 million cubic feet of natural gas per day to customers in the San Joaquin Valley, Sacramento and the San Francisco Bay Area.**

Dear Ms. Griggs:

Thank you for including the California State Department of Transportation (Caltrans) in the environmental review process. We have reviewed the above referenced DEIR/S and wish to forward the following comments:

20-1 1. The DEIR/S discusses the need for an encroachment permit from Caltrans and FHWA, however, it does not specifically discuss the project's impacts on resources within the State's right-of-way. The document needs to identify the resources by type, the impacts and suggested mitigation measures for these impacts. This may require additional technical studies in these specific areas.

20-2 2. A Storm Water Pollution Prevention Plan may be required for a project which includes clearing, grading, or excavation that results in soil disturbance of at least five acres of total land area.

20-3 3. All work performed within the State right-of-way will require an encroachment permit from Caltrans. A completed application, environmental documentation and five sets of maps should be submitted to the following address:

20-1 Thank you for this guidance. The referenced encroachment permits are for and suggests mitigation measures for the impact.

20-2 Thank you for this guidance. As described in section 5.3.3.1 and MPM 23, Mojave would prepare an EPA-required Storm Water Pollution Prevention Plan.

20-3 We will pass this requirement along to Mojave.

G. J. Battaglini, District Office Chief
Caltrans District 4
Maintenance Services & Permits
P. O. Box 23660
Oakland, CA 94623-0660

We appreciate the opportunity to work with you on this project and wish to continue close correspondence on any new developments. Should you have any questions regarding these comments, please contact Salimah As-Sabur of my staff at (510) 286-5583.

Sincerely,

JOE BROWNE
District Director

By: Phillip Badal

PHILLIP BADAL
District Branch Chief
IGR/CEQA

cc: Mike Chiriatti, SCH
Craig Goldblatt, MTC
Patricia Perry, ABAG

Stanislaus County

Department of Environmental Resources

1716 Morgan Road
Modesto, California 95358-5894
FAX# (209) 525-4163
(209)
525-4154
DEH FAX 525-4198

March 1, 1995

ATTN: MS MARY GRIGGS
CALIFORNIA STATE LANDS COMMISSION
1807-13TH ST
SACRAMENTO CA 95814

SUBJECT: MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

The subject DEIR has been circulated among the Department's divisions for review and comment. The following concerns were identified and need to be addressed and/or incorporated into the proposed mitigation measures.

Contact person - Robert Fourt, Sr.H.M.S., Hazardous Materials Division, (209) 525-4150.

21-1 **Section 5.11.4, Contaminated soil and groundwater - The proposed route of the pipeline has the potential to intercept known and unrecognized soil and groundwater contamination sites. The proposed mitigation measures do not fully address the need to address the contamination.**

Based on the provided maps it appears that the route of the proposed pipeline will pass close to several documented releases. The use of historic transportation corridors where the storage and use of hazardous materials tend to be concentrated for the pipeline route suggests that additional releases will be uncovered during pipeline construction.

21-2 **Soil and groundwater contamination identified during the installation of the pipeline must be addressed. Revised procedures for the removal, stockpiling, and treatment of contaminated soil must be included in the Environmental Impact Report/Environmental Impact Statement. Disposal of contaminated soil in the pipeline excavation must have the approval of this office. Typically, disposal of contaminated soil cannot take place without demonstrating that the contamination does not have the potential to impact the groundwater or pose a threat to the environment.**

21-3 **An agreement between the pipeline company and the property owners granting access for the installation of the pipeline on the responsibility for addressing the soil and groundwater contamination discovered by the installation activities should be reached and submitted as part of the mitigation measures. Property owners appear to include Southern Pacific Railroad, City of Modesto, City of Turlock, and Stanislaus County.**

21-1 Thank you for your comments. This issue is adequately addressed in section 5.11.4 which describes Mojave's General Contingency Plan for addressing soil and groundwater contamination identified during the installation of the pipeline and acknowledges that some cities or counties could impose additional requirements as permitted by local ordinance.

21-2 This issue is adequately addressed in section 5.11.4 and MPMs 100 through 105 describe the procedures Mojave would follow for removing, stockpiling, and treating contaminated soil. In addition, ARM 46 requires that Mojave consult with agencies to minimize the impact of crossing contaminated soil.

21-3 We will pass this suggestion along to Mojave.

Calif. State Lands Comm.
Re: Mojave Pipeline Northward expansion
DEIR/EIS
Page two
March 1, 1995

21-4 **All encounters with contaminated soil must be documented and reported to Stanislaus County and the Central Valley Regional Water Quality Control Board. Mojave Pipeline**
21-5 **Company's General Contingency Plan should be submitted for review and approval as part of the EIS/EIR process.**

Thank you for the opportunity to comment at this time.

Keith C. Munroe

KEITH C. MUNROE, Sr.E.H.S.
SENIOR ENVIRONMENTAL HEALTH SPECIALIST
Division of Environmental Health

ck
cc: Stan. Co. Environmental Review Committee, Attn: Chair
Bob Fourt, Haz. Mat. Div.

21-4 We will pass this request along to Mojave. See ARM 46.

21-5 We have described the contents of Mojave's General Contingency Plan in section 5.11.4. We disagree that the plan should be submitted for review as part of the EIR/EIS process because we believe we have adequately described impacts and mitigation and have acknowledged that local agencies may impose additional requirements.

Stanislaus County

Department of Public Works

1100 H STREET
MODESTO, CALIFORNIA 95354

- **ADMINISTRATIVE DIVISION (209) 525-6550**
- **ENGINEERING DIVISION (209) 525-6552**
  BUILDING INSPECTION (209) 525-6557
  TRANSIT OPERATION (209) 525-6552
  ROAD DIVISION (209) 525-4130
  SANITARY LANDFILL (209) 837-4800
  EQUIPMENT DIVISION (209) 525-4145
  BUILDING MAINTENANCE (209) 525-4108
- **FAX (209) 525-6507**

March 17, 1995

Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

SUBJECT: Mojave Northward Expansion Project -- Environmental Impact Report

21-6 Prior to start of construction on any segment of the proposed pipeline that will be within Stanislaus County road right-of-way, an encroachment permit must be obtained from the Stanislaus County Department of Public Works. All work must conform to County standards. Until we have the opportunity to review the construction plans, it is difficult to outline specific standards. I encourage the design engineer to contact us as soon as work starts on the construction plans. However, I do have the following general comments:

1. Boring may be required at all road crossings.
2. Casing vents (Figure 2.4.2-1) must be located outside the road right-of-way.
3. No above ground facilities will be permitted within the road right-of-way.
4. Longitudinal trenches may require an overlay of the entire travel lane.
5. Maintenance agreement will be required.

Prior to issuance of the encroachment permit, a franchise agreement must be obtained from Stanislaus County. Any questions concerning the franchise agreement should be directed to the Chief Executive Office, 1100 "H" Street, Modesto, CA 95354 (209) 525-63333.

Very truly yours,

H. R. CALLAHAN, Director

By Charles Barnes

Charles Barnes
Assistant Engineer

CB:
cc: Bob Kachel, Planning (ERC) Michele Laverty, CEO (ERC) (mojave.cb)

21-6 We will pass this information on to Mojave.

CHIEF EXECUTIVE OFFICER

1100 H Street, P.O. Box 3404, Modesto, California 95353
(209) 525-6333
FAX (209) 544-6228

REAGAN M. WILSON

April 12, 1995

Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, CA 95814

SUBJECT: MOJAVE NORTHWARD EXPANSION PROJECT - EIR

Dear Ms. Griggs:

21-7 The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project. It is the consensus of the Committee that prior to start of construction on any segment of the proposed pipeline within Stanislaus County road right-of-way, an encroachment permit must be obtained from the Stanislaus County Department of Public Works. The comments addressed in the March 17, 1995 letter from the Stanislaus County Department of Public Works must be included in the construction plans, which should be submitted to the Department for review.

21-8 Additionally, the concerns outlined in the March 1, 1995 letter from the Stanislaus County Department of Environmental Resources should be incorporated into the mitigation measures.

21-9 Prior to issuance of the encroachment permit, a franchise agreement must be obtained from Stanislaus County. The ERC appreciates the opportunity to comment on this project. Any questions regarding the franchise agreement should be directed to the Chief Executive Office.

Sincerely,

Richard Jantz
Deputy Executive Officer
Environmental Review Committee

RJ:ML:plc
cc: ERC Members

21-7 Comment noted; no response required.

21-8 See response to comments 21-1 through 21-5 which indicate that this mitigation has already been included.

21-9 We will pass this requirement on to Mojave.

REGIONAL PARKS
EAST BAY REGIONAL PARK DISTRICT

BOARD OF DIRECTORS
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March 17, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 N. Capital Street, N.E.
Washington, D.C. 20426

SUBJECT: DEIR FOR THE MOJAVE PIPELINE NORTHWARD EXPANSION
PROJECT. DOCKET NOS. CP93-258-000, ET AL
BLACK DIAMOND MINES/CONTRA LOMA/SHADOW CLIFFS/
MISSION PEAK/VASCO CAVES

Dear Secretary Cashell:

The East Bay Regional Park District (EBRPD) has reviewed the Draft EIR for the subject project and offers the following comments.

22-1 The EIR should be augmented throughout to address the physical
effects of ongoing operation. For example, leaks or ruptures in
22-2 the pipeline on the extremely steep western slopes of Monument
Peak (Palo Alto segment mile post 20-22) would require
substantial regrading to provide access for repair equipment.
This impact should be among the factors considered in judging the
feasibility of alternatives.

22-3 If the pipeline is approved, the EBRPD would be pleased to work cooperatively with the FERC, Mojave Pipeline, U.S. Fish and Wildlife, California Department of Fish and Game and other interested parties in order to carry out the mitigation measure regarding the San Joaquin kit fox (page 5-68). For example, if compensatory habitat would be acquired proximate to EBRPD facilities, the EBRPD may be willing to accept ownership or enter into an operating agreement as this would help assure that this endangered animal will persist on District lands.

Similarly, the EBRPD would be pleased to participate in the mitigation measures for the Alameda whipsnake (page 5-71), the California tiger salamander (page 5-73) and the other rare, threatened an endangered species which possibly would be effected (pages 5-54 to 5-75).

2950 Peralta Oaks Court P.O. Box 5381 Oakland, CA 94605 0381 Tel: 510 635 0135 TDD: 510 633 0460 Fax: 510 569 4319

22-1 Thank you for your comments. We believe this subject is adequately discussed in sections 2.5 and 2.6 which describe pipeline operation and maintenance.

22-2 The number of miles of slopes greater than 15 percent grade that would be crossed by the pipeline was one of the criteria used in the comparative route analysis; the criterion applies to both construction and operation.

22-3 We will pass this offer along to Mojave.

22-4 In addition to the comment above regarding physical effects of ongoing operation, the discussion of the adverse impacts of the Palo Alto segment of the pipeline upon park and recreation facilities (pages 5-95 to 5-96 and 5-103) should be augmented with respect to the EBRPD's Mission Peak Ridge Regional Preserve. Specifically, it should evaluate the fact that Mojave forbids trail development on its right-of-way. Because Mojave proposes that a major north/south trail/service road in the park be used as its right-of-way, it appears the project would preclude this major trail. This constitutes a significant adverse impact upon recreation within that EBRPD facility. It also constitutes an adverse impact with respect to the planned Bay Area Ridge Trail, a multi-agency cooperative project to provide a ridge top trail circling San Francisco Bay. Similar impacts would occur at every location where the pipeline crosses a trail or a planned trail; for example, in Sycamore Park (owned by Livermore Area Recreation and Park District) and along Coyote Creek planned (by Santa Clara Park and Recreation Department and the Trail Around the Bay) as a trail and along the Southern Pacific Railroad right-of-way between Antioch and Tracy. These adverse impacts should be considered as the feasibility of alternatives is evaluated. These adverse impacts may be avoided by a simple change of policy by Mojave. It is the EBRPD's experience that trail development is not incompatible with pipeline use. The District operates many miles of trail along pipeline right-of-ways with little or no use conflict.

22-5 The EBRPD concurs with the analysis of the Tracy to Antioch S.P.R.R. alternative (pages 6-1 to 6-3) and strongly supports the mitigation measure requiring relocation of the pipe alignment to that alternative corridor should the project be approved.

The EBRPD appreciates the opportunity to review and comment on the subject document and the courtesy and attentiveness of your staff, the SLC staff and their consultants.

Very truly yours,

T.H. Lindenmeyer
Environmental Specialist

cc: Michael Boyle, Energy Regulatory Comm.
Mary Griggs, CA State Lands Commission

t\95\mojave2.eir

22-4 We believe the subject of recreational trails is adequately addressed in the document. Mojave does not, in fact, prohibit trail development on its right-of-way. As described in section 5.7.1.3 of the EIR/EIS regarding the planned trails and bikeways of the Santa Clara County Parks and Recreation and Transportation Departments, Mojave has stated that its buried pipeline would not interfere with the proposed surface trail, and would consider special easement conditions to permit a paved bikeway trail. With regard to the existing trail in the Mission Peak Regional Preserve, discussed in section 5.7.3.3 of the EIR/EIS and in MPM 81, Mojave would maintain safe pedestrian access on the trail during construction or establish temporary detours to minimize inconvenience to trail users. Mojave's easement would not inherently interfere with the use of an existing trail or preclude the installation of a proposed trail. As discussed in section 5.7.3.2 of the EIR/EIS, surface uses not expressly limited or addressed in Mojave's easements are controlled by the affected landowners rather than by Mojave. This means EBRPD would hold the option of addressing with Mojave the need for joint use of the right-of-way with a recreational trail.

22-5 Comment noted. No response is required.

RECEIVED MAR 2 3

NORTH STATE
Development Company
4021 Port Chicago Highway • P.O. Box 4113 • Concord, CA 94524-4113 • (510) 671-7711

March 17, 1995

California State Lands Commission
1807 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

Reference: Mojave Pipeline Northward Expansion Project Draft EIR/EIS
Docket Nos. CP93-258-000, et al.

North State Development Company owns land in several locations along the alignment of the proposed gas pipeline project in Contra Costa County. We submit the following comments for consideration and response prior to a decision on the project by FERC and SLC:

23-1 We strongly encourage that the Southern Pacific Railroad (SPRR) Alternative be approved as shown on Map A2. We agree with the conclusions of your environmental staff on page ES-4 of the EIR/EIS that this alignment through East Contra Costa County is environmentally superior to either the North Mainline or the San Joaquin Valley (SJVP) Alternative. The SPRR Alignment would be located in an existing right of way which generally passes through non-residential areas. The railroad right-of-way is level and will allow excellent access for installation and repair work on the gas line.

The North Mainline alignment, after it leaves the railroad right of way in West Pittsburg, and the SJVP alignment pose many problems from the standpoint of safety and practicality. The topography along both alignments is very hilly and significant

23-1 Thank you for your letter. We have recommended the Tracy to Antioch Southern Pacific Railroad Alternative.

access and installation difficulties will be faced. Once installed in this rugged terrain, there will be a serious risk of pipeline damage or failure due to landslides which are common in the area. Furthermore, these alignments pass through a number of existing or planned residential developments. The planned developments, many of which are already approved, will involve mass re-grading along these proposed alignments. This re-grading will require the gas pipeline to be raised or lowered or perhaps realigned in the future. Since cuts or fills of up to 100 feet will occur along these alignments, it will be necessary for the pipeline to be removed from service for months at a time while these projects are graded.

From a safety standpoint, we are concerned that hundreds of homes are existing or approved to be constructed within a few feet of the North Mainline and SJVP alignments. Several community parks and schools are also planned nearby. A high pressure gas line, which has the potential for leaks and explosions, should not be located in a residential area. If there is no other alternative, the line must be required to be constructed with thick walls and high strength materials and a concrete cap should be provided to prevent future digging accidents.

We are in agreement with the proposed General Conditions and in particular ARM 4 (page 7-4) which calls for the adoption of the Southern Pacific Railroad Alternative through Contra Costa County. This is consistent with the requirements of the California Environmental Quality Act which provides that public agencies have a duty "to avoid or minimize environmental damage where feasible" (Public Resources Code 21002, CEQA Guidelines 15021 Ca). If any other alignment is considered however, it is incumbent that each property through which the proposed pipeline will pass be studied carefully before a final decision is made. The study provided in the EIR/EIS is very cursory and does not address the site specific problems which will be encountered in constructing and maintaining the pipeline.

We appreciate the opportunity to comment on the Mojave project because it could have a significant impact on the residents of Contra Costa County. We hope that our comments will be considered and that only the railroad alignment will be allowed to proceed.

Sincerely,

North State Development Company

Richard Sestero

Richard D. Sestero
Project Manager

Enclosure

misco\mojave

cc: Mr. Michael Boyle
Federal Energy Regulatory Commission
Environmental Project Manager
Office of Pipeline Regulation, Room 7312
825 North Capitol Street NE
Washington, DC 20426

Dr. Samuel M. McGinnis
Environmental Consultant
9699 Melton Road Manteca, California 95337
(209) 599-2726

March 21, 1995

Ms. Mary Griggs
Environmental Project Mananger
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

24-1 Enclosed is a response to the Mojave Pipeline Northward Expansion Project DEIR/DEIS. It concerns the adverse impact which the eastern most portion of the Ripon Segment of the proposed pipeline route would have on small family almond farms in the West Ripon area. In reviewing all of the proposed route maps in Volume II of the DEIR/DEIS, we find that this is one of the few areas where the Mojave Pipeline Company deviates from its essentially benign policy of using railroad and paved road right-of-ways for pipeline installation and instead strikes out through prime farms land. The projections of potential financial loss to these families in this response report are very realistic, and some farmers have already expressed their opinion to me that they are at best minimal.

This is also a crucial time for these farmers. As you know, this agricultural region has recently been declared a federal disaster area as a result of the recent record-setting rain and wind storms. Indeed, some of the small farms which would be impacted by this proposed pipeline route have already lost a considerable number of mature, producing trees to these acts of nature. Clearly, they do not need an "act of big business" to compound their losses.

I believe we have here an excellent opportunity for the EIR/EIS process to function as intended. We have proposed a logical and workable mitigation measure to eliminate this potential impact. By following West Ripon Road to Manteca Road and then on to Perrin Road as shown in the comment report map, no impacts to family farms will occur since these are wide roads with established right-of-ways large enough to accommodate the pipeline installation as described in the DEIR.

In consideration of the Mojave Pipeline Company's interests, this proposed mitigation measure might at first appear to place a small financial burden on this company since it would require the installation of an additional 0.8 mile of pipeline. However, it must be noted here that these road right-of-ways are essentially free, whereas the cost and time needed to legally acquire new or extended right-of-ways through these family farms could very well be in excess of the additional pipeline cost.

24-1 Thank you for your letter. See response to comment letter 8 where we describe the use of existing rights-of-way, the requirements to restrict the construction right-of-way to 40 feet, and the compensation that will be provided for loss of production and other damages. We also evaluated the suggested route variations in section 3.4 and present our conclusions and recommendations in section 6.4. The essence of the commentor's concern is the financial impact on landowners of the proposed project. To address this concern and ensure fair compensation for losses, we have added a recommendation that the agricultural expert hired by Mojave to assist in right-of-way negotiations be acceptable to both Mojave and the group of farmers represented by the commentor.

In conclusion, I believe that the minor pipeline route alteration proposed here would be advantageous to all parties concerned. I therefore request that the California State Lands Commission, in conjunction with the Federal Energy Regulatory Commission, require that a provision for certification of the Mojave Pipeline Northern Expansion Project EIR/EIS be that no Ripon area family farms are impacted through the condemnation of their land and the forced sale of right-of-ways through their orchards and crop fields.

Thank you for considering our request, and please call if any further information is needed.

Sincerely,

Samuel M. McGinnis

Samuel M. McGinnis

UNITED STATES DEPARTMENT OF COMMERCE
Office of the Under Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

March 10, 1995

CP93-258-000

95 MAR 17 PM 12:03

Lois D. Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washingotn, DC 20426

Dear Ms. Cashell:

Enclosed are comments on the Draft Environmental Impact Statement for Mojave Pipeline Northward Expansion Project, Sacramento, California. We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

Donna Wieting

Donna S. Wieting
Acting Director
Ecology and Conservation Office

Enclosure

FINSSR

Disks Rec !

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Silver Spring, Maryland 20910

MAR 8 1995

MEMORANDUM FOR: Donna Wieting
Ecology and Environmental Conservation Office
Office of the Chief Scientist

FROM: Captain Lewis A. Lapine, NOAA
Chief, National Geodetic Survey

SUBJECT: DEIS-9502-05 -- Mojave Pipeline Northward
Expansion Project, Sacramento, California

The subject statement has been reviewed within the areas of the National Geodetic Survey's (NGS) responsibility and expertise and in terms of the impact of the proposed actions on NGS activities and projects.

All available geodetic control information about horizontal and vertical geodetic control monuments in Sacramento County is provided on the diskettes accompanying this memorandum. This information should be reviewed for identifying the location and designation of any geodetic control monuments that may be affected by the proposed project.

25-1 If there are any planned activities which will disturb or destroy these monuments, NGS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation. NGS recommends that funding for this project include the cost of any relocation(s) required.

For further information about these monuments, please contact John Spencer, NOAA, NGS, N/CG1, 1315 East-West Highway, Silver Spring, Maryland 20910, telephone 301-713-3169, fax 301-713-4172.

Attachments

25-1 Thank you for your letter. We will pass this information along to Mojave. The requirement to notify NGS of any activities that may affect geodetic control monuments has been added to table 1.4-1.

CALTRAIN

Peninsula Corridor Joint Powers Board
1250 San Carlos Ave., P.O. Box 3006, San Carlos, CA 94070-1306
(415) 508-6269 fax (415) 508-6281

March 16, 1995

CP93-258-000

FILED
OFFICE OF THE SECRETARY
95 MAR 20 AM 1:32
FEDERAL ENERGY
REGULATORY
COMMISSION

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

Ladies and Gentlemen:

The Peninsula Corridor Joint Powers Board (PCJPB) appreciates the opportunity to comment on the Federal Energy Regulatory Commission's (FERC) and California State Lands Commission's (CSLC) Draft EIR/EIS Studies, Volumes I and II, for the Mojave Pipeline Northward Expansion Project.

The PCJPB, which is jointly owned by the Counties of Santa Clara, San Mateo and San Francisco, purchased the railroad right-of-way and trackage between San Francisco and San Jose from Southern Pacific Transportation Company (SPT) in December of 1991. We currently operate sixty (60) passenger trains per day, carrying about 10,000 passengers in and out of San Francisco. SPT also operates several freight trains and local switchers on our lines each day by virtue of a trackage rights agreement.

26-1 We have never been formally approached by the Mojave Pipeline Company or any consultants who were engaged in making the EIR/EIS Study, but we have received several informal telephone calls and secondary information about the proposed pipelines from city and county agencies located on our railroad. We have never been notified of public meetings.

Having recently received copies of the Draft EIR/EIS, we would like to make the following comments:

26-2 1. What is the Mojave Pipeline Operating Company? Financial standing?

26-3 2. What will be the diameter of the gas pipeline on the San Francisco Peninsula and what will be the gas pressure?

26-1 Thank you for your letter. Mojave contacted the real estate division of the Peninsula Corridor Joint Powers Board (PCJPB) on several occasions to discuss space available within the corridor for an additional utility. Mojave's contact was Mr. Tom Davids with the PCJPB, and was initiated on April 23, 1993.

During the land title investigation phase of the project, Mojave right-of-way agents were informed by Southern Pacific Transportation Company that Southern Pacific had granted limited rights to the PCJPB and had retained the underlying fee ownership of the corridor. Detailed title work is required to determine the rights of all parties; however, our preliminary records list Southern Pacific Transportation Company as the fee owner of the railroad strip with PCJPB having only an easement interest. During preparation of the draft EIR/EIS, we contacted Mr. Davids on September 16, 1994. Notification of public hearings on the draft EIR/EIS was included in the notice at the front of the draft EIR/EIS. It was also noticed in local newspapers.

26-2 MPOC is the same as MPC. It is a subsidiary of El Paso Natural Gas Company.

26-3 According to figure G-11 (Mojave Pipeline System, Flow Sheet, Maximum Capacity), in Mojave's application to the FERC, the proposed diameter of the Palo Alto Segment downstream of the Fremont Segment is 12 inches, and the operating pressure is 570 pounds per square inch (psi). The Hunters Point Segment is also proposed to be 12 inches in diameter and operate at 470 psi. The San Francisco Segment is proposed to be 6 inches in diameter and operate at 495 psi.

26-4 3. The EIR/EIS Report implies in several sections and on some maps that PCJPB's right-of-way will be used for a longitudinal encroachment by the gas pipeline. If this is not so, then city streets, residential and commercial areas will be required for the pipeline. If it is so, then the preparers of the EIR/EIS should be aware of PCJPB's standards, policies, and long range plans as follows:

26-5 A. PCJPB has a long established policy in regard to longitudinal and transverse right-of-way encroachments, easements and fees.

B. PCJPB already has many underground fiberoptic lines, signal cables, numerous utility lines of all descriptions, and, at some locations, two underground longitudinal, high pressure petroleum pipelines.

C. PCJPB's Design Criteria requires that planned activities on its right-of-way must provide for construction of a future, third main track, electrification of the rail line and construction of a bidirection, centralized traffic control system. Encroachments on the right-of-way must conform to these plans.

D. PCJPB requires compliance with its two volumes of Standards regarding utility encroachments, Operating System Interface, including Site Specific Work Plans, Shoring and Falsework Standards, Clearances, etc.

E. PCJPB requires agreements for all encroachments as follows:

(1) Easement Agreement including fee
(2) Construction and Maintenance Agreement
(3) Right of Entry Agreement including Railroad Protective Insurance

All flagging, engineering review, inspection, etc. is paid for by the applicant.

To the extent that the EIR/EIS review may have relied upon easy access to PCJPB's railroad right-of-way between San Francisco and San Jose, that review is not complete and may be inaccurate. If some or all of PCJPB's requirements outlined in items A through E, above, preclude the Mojave Pipeline Operating Company from laying an underground, high pressure gas pipeline

26-4 The stated assumption is correct.

26-5 Mojave has made an initial contact with PCJPB's real estate division regarding this matter. Negotiations for easements occur during the right-of-way acquisition and permitting phase of the project. Pipeline routing experts have placed the pipeline where they believe it is feasible to construct. In route selection, surface indications of underground facilities were considered. Where it was apparent that space was not available in the corridor to accommodate another underground facility, the route was moved away from the railroad alignment. Exhaustive substructure research would be done during the detailed design phase of the project. All existing underground facilities would be protected or repaired if inadvertently damaged. Mojave would make every reasonable effort to coordinate the installation of the pipeline with other currently planned projects. Mojave has made initial contact with the PCJPB regarding their future plans. The appropriate standards would be obtained and reviewed during the detailed design phase of the project. It is Mojave's policy to comply with the requirements of the appropriate public agency or private landowner unless the requirements are extraordinary and/or unnecessarily burdensome.

on its right-of-way, the alternative routes through city streets and residential and commercial areas may well raise environmental issues not contemplated in the Draft EIR/EIS Study.

Yours truly,

Jerome Kirzner

Jerome Kirzner
Director - Rail Services

JK:ADD:dgm

OLIVINA RANCH
Charles Crohare

March 17, 1995

Federal Energy Regulatory Commission
Mr. Michael Boyle
825 North Capitol Street NE
Room 7312
Washington, DC 20426

Re: Mojave Pipeline Northern Expansion Project
Comments on the Draft EIR-EIS
Docket #CP93-258-000 ETAL

Dear Mr. Boyle:

My name is Charles Crohare, co-owner of the Olivina Ranch located in Livermore, California (APN99-500-3-8) located south of Sycamore Grove Park at the corner of Arroyo & Wetmore Roads in Livermore. After attending both scoping meetings in Livermore on 2/28/95 and 5/10/95, also the separate meeting with Mojave Officials held at Wente's Winery on Tesla Road (1/5/95).

27-1 We would like to make these comments once again, regarding the proposed routing of the Palo Alto Segment through the Livermore Valley and as it passed through our ranch property (MP6.8-7.9) as shown in draft EIR. We support the Livermore/Railroad Variation using existing SP Railroad right of ways which are mostly not in use at the present time. This alternative completely avoids the South Livermore Valley.

27-2 If this does not prove workable, our second alternative suggestion would be to cross the South Valley using existing road systems and right of ways as shown to Mojave Reps William Bauer and Dennis Needham, and yourself at scoping meeting held in Livermore on 2/28/95 (Blue Lined on Map 41.1).

P.O. Box 2986, Livermore, Ca 94550

27-1 Thank you for the comment. Because Mojave has dropped the Oakland segment from the project, the Livermore/Railroad variation is no longer viable; however, section 3.4 describes the new Livermore/Roadway variation developed in response to public comment.

27-2 Comment noted. We believe the Livermore/Roadway Alternative addresses the commentor's concerns.

OLIVINA RANCH

Charles Crohare

27-2 We would prefer a routing which completely avoids this area due to the sensitivity of the South Livermore Valley. Please contact me if there are any questions at (510) 447-0488. Thank you.

Sincerely,

Charles Crohare

Charles Crohare
South Livermore Property Owner
Olivina Ranch

cc:
Federal Energy Regulatory Commission
Lois Cashell, Secretary
825 North Capitol Street NE
Room 7312
Washington, DC 20426

✓ California State Land Commission
Mary Griggs
1807 13th Street
Sacramento, CA 95814

P.O. Box 2986, Livermore, Ca 94550

Raymond Zuidervaart, Jr.
700 Spice Quay
Chesapeake, Virginia 23320-9276
(804) 548-2928

March 17, 1995

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 - 13th Street
Sacramento, CA 95814

Re: FERC/EIS-0086D
FERC Docket
Nos. CP 93-258-000, et al.

Dear Ms. Griggs:

I have received a copy of the Environmental Impact Report/Environmental
Impact Statement for the Mojave Pipeline Northward Expansion Project. I
have concerns regarding the location of the proposed pipeline, and its
28-1 impact on California agriculture. In addition the exact location of the
pipeline on my property is unclear according to the maps included in the
report.

First, the general location of the proposed pipeline in the Central San Joaquin Valley of California is inappropriate due to the heavily populated cities and towns along the route, and the prime productive agricultural land that surrounds them. Second, the location, as indicated in the EIR/EIS dissects several parcels of this prime agricultural land. The report erroneously states that this land is infertile when in fact it is productive farm and ranch land. Finally, the operation of the pipeline would disrupt farming activities in many areas. I cannot speak for other farmers and ranchers effected by this pipeline but I will use my own situation as an example.

My acreage is planted in almond trees. The farms around me are also permanently planted crops such as walnuts, grapes, kiwi, and almonds. In addition, various annual row crops are grown on surrounding farms. According to the information in the report, a right-of-way would be necessary during construction and on a permanent basis after completion of the pipeline. As I understand this proposal for construction and operation of the pipeline, the farming activities on my almond ranch would be disrupted during construction, and access as well as use of my property would be hindered on a permanent basis.

Almond trees are irrigated every 10 to 15 days from April to September.
Without this irrigation the crop may be destroyed, and the trees would
suffer permanent setback and damage. As I understand the construction
process of this pipeline it seems that timing the actual digging and
laying of the pipe would be crucial to my livelihood and the livelihood
of every farmer and rancher along the pipeline route. In addition many
28-2 farmers and ranchers throughout central California burn crop refuse on a
regular basis, and fire in the area of a gas pipeline would cause a
dangerous hazard to people living and working in the area.

28-3 The exact route of the pipeline is unclear, as map 11 and map 22 show the pipeline located differently. On map 11 the pipeline is shown running along my northern property line, but on map 22 the pipeline is

28-1 Thank you for your comments. MPM 68 addresses compensation to landowners for crop, orchard, and vineyard losses through easement agreements. Section 5.2.2 acknowledges that construction activities can reduce agricultural productivity by disrupting or damaging irrigation and drainage systems, and large stones brought to the surface during trenching can interfere with agricultural machinery. Procedures to mitigate this general construction impact are addressed in appendix A, the FERC's Upland Erosion Control, Revegetation, and Maintenance Plan.

28-2 Burning crop refuse does not create a hazard in relation to the pipeline because in agricultural land the pipeline will have a minimum five feet of cover.

28-3 Map 11 more accurately shows the proposed pipeline route west of Ripon along the south side of Hutchinson Road. The proposed route is adjacent to Hutchinson Road on the south side.

28-3 running directly down the middle of my property. The pipeline
dissecting my property is intolerable. I would have to permanently
28-4 remove producing almond trees, and I would suffer financial loss each
year these trees were out of production. I have not as yet calculated
my actual loss, but it would be substantial. At the present time my
farm is leased because I am temporarily living in the state of Virginia.
I will have a difficult time finding people interested in leasing land
that suffers the disruptions caused by a natural gas pipeline running
through the property. I am a small farmer, but my example is surely
repeated several times along the pipeline route.

In closing I would like to point out that the State of California has designated my land to be used solely for agricultural purposes as prescribed by the Williamson Act. The State of California considers this land important to agriculture. The land's usage should not be changed or destroyed by a natural gas pipeline running through it.

Sincerely,

Raymond Zuidervaart, Jr.

copy: Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

Mr. Michael Boyle
Federal Energy Regulatory Commission
Environmental Projct Manager
Office of the Pipeline Regulation, Room 7312
825 North Capitol Street, NE
Washington, DC 20426

28-4 See responses to comment 8-2 and 24-1. We believe that the Livermore/Roadway alternative addresses the commentor's concerns.

March 18, 1995

Re: Docket Nos. CP93-258-000, *et al.*

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

General Comments on the Proposed Mojave Pipeline Expansion

The following comments are focused on soil erosion and revegetation issues. However, consultation with colleagues indicates that the sanguine view taken on p. 5-3 that pipeline design for fault crossings is "fairly routine," is not the case. Although USGS did not volunteer to be a cooperating agency, I urge FERC to seek the independent assessments of experts in that agency relevant to potential impacts of this project.

The credibility of mitigations recommended in the Mojave Expansion DEIR/S can be measured against actual performance of the same mitigations that were to govern construction of the existing Mojave-Kern River project, the EIR/S for which is incorporated by reference in the present DEIR/S (p. 4-109). Those comparisons are made in the following comments.

Application of relevant published literature is inadequate and is biased in ways that avoid problems not solved in the Mojave, Kern River, and All American pipeline construction (Wilshire, 1992a,b; 1993, 1995, and references contained therein), and opens the door for repetition of NEPA violations resulting from procedures employed for those pipelines (Wilshire, 1993, 1995). The 1992 reports cited above, on environmental impacts of the Mojave, Kern River, and All American pipelines within the Mojave Desert in southern California, were made available to FERC and the CSLC shortly after their publication.

NEPA Violations, Existing Mojave/Kern River Pipelines, Relating to Mitigations Proposed in Mojave Extension DEIR/S

(1) Specific mandatory mitigations for Mojavean vegetation of special concern were stated in the Mojave-Kern River Pipeline Projects Environmental Impact Report, Final Amendment (1991), Appendix D, California Department of Fish and Game Biological Opinion, Section Sensitive Plants, items 4 and 5, p. D-44 as follows,

> 4. "Joshua trees shall be avoided where feasible. where [sic] avoidance is not possible, smaller Joshua trees (of a size where transplant [sic] is likely to be successful) shall be removed, held in a cool, dry place during construction, and replanted near the original location of [sic] the ROW after recontouring."
>
> 5. "Cactus and yucca shall be avoided where feasible. If avoidance is not possible, they shall be transplanted where feasiable to adjacent locations, or held in a cool, dry place during construction and replaced on the ROW after recontouring."

Appendix D was cited in Table S-2 (p. S-14) of the Final Amendment among the mitigations for impacts to terrestrial biology.

These mandatory actions were incorporated in the ROW Grant/Temporary Use Permit for the Mojave and Kern River projects as Specific Environmental Stipulation 5 (g),

> "Joshua trees, sensitive cacti and perennial species, and other specimen vegetation that cannot be avoided shall be carefully removed from the rights-of-way, held in secure locations, and replanted on the right-of-way near their original locations after completion of construction. Within desert tortoise habitat, sensitive cacti, perennial species and other specimen vegetation shall be defined as larger and/or slow-growing species that provide shelter and/or food resources for desert tortoises. These species shall include Joshua trees (*Yucca brevifolia*), Mojave yuccas (*Yucca schidigera*), and Spanish bayonet (*Yucca baccata*),..."

The Construction, Operation, and Maintenance (COM) Plans (p. S3-3,5, Kern River COM Plan) reduced this requirement to 100 cacti and 100 yucca in California. Because the COM Plan is reviewed by the appropriate agencies and not by the public, this substantive change in mitigation appears to violate the full disclosure element of NEPA. Moreover, incorporation of this agreement in the ROW Grant (which is done upon agency approval of the COM Plan) is directly contradictory to the mitigation stated in the ROW Grant [Specific Environmental Stipulation 5 (g)]. In actual performance, destruction of yucca species, including Joshua trees, and cacti ranged from 13,500 to 15,500 per mile of corridor in Joshua tree woodlands, and destruction of all perennial species ranged from 19,000 to 60,000 per mile (Wilshire, 1992a,b; 1993, 1995).

29-1 Since the same mitigation, without limitation to Desert tortoise habitat, is stated in the Mojave Expansion DEIR/S on pages ES-16, 5-34, p.7-9, 7-24, and is stated as mandatory on p. B-10, what assurance is there that the mitigation, or any other, will not again be substantively watered down by agreements made outside of public review?

(2) It is stated on p. ES-11, Mojave Expansion DEIR/S that the staff believes specific mitigation measures developed are

> "...appropriate and reasonable because they would significantly reduce the environmental impact...Where additional studies, plans, surveys, or field investigations are recommended, any significant impact that is identified would be either avoided or mitigated to a nonsignificant level. The staff's present determination of environmental acceptability would, therefore, be unaffected by the outcome of the recommended studies, which typically result in additional site-specific mitigation and further reduction of impact."

This is a blank check and clearly violates the full disclosure element of NEPA, because it bypasses public review. I, for example, do not agree that some presently stated mitigations reduce impacts to a nonsignificant level, but at least I have the opportunity to identify and comment on the problems. Any studies recommended, the findings, and any resulting agency decisions should be performed before the public review period to comply with NEPA. 29-2

29-1 Thank you for your letter. Our review and compliance of certificated projects and our mitigation measures have evolved significantly since the 1987 issuance of the final EIR/EIS on the original project. For example, we now require applicants to employ onsite environmental inspectors not only to observe but to help direct the implementation of required mitigation and to provide adequate environmental training to all personnel involved with construction and restoration. We also require applicants to incorporate the mitigation measures into the construction bid documents and contracts. See ARMs 3, 7, 8, 9, 10, and 11.

29-2 We agree that the statement referred to by the commentor is misleading. Our intent is to address the significant impact identified in the EIR/EIS, not new or previously unidentified significant impact. The Executive Summary has been revised to clarify this point.

Nonperformance of Mitigations Required for Existing Mojave/Kern River Pipeline Repeated in Mojave Expansion DEIR/S

29-3 A number of mitigations required or recommended for construction of the existing pipelines that are repeated in the present DEIR/S were not actually accomplished. Failure to disclose these problems and to require their correction vitiates the mitigations proposed in the Mojave Expansion DEIR/S.

(1) Even the minimal modified salvage and transplantation requirements given in the COM Plans for the existing Mojave and Kern River pipelines (100 yuccas and 100 cacti in California) were not implemented. No transplantations of any kind were observed in the Kern River corridor (Wilshire, 1992a; no change was observed as recently as January, 1995), and only barrel cacti transplantings were observed on the Mojave line, although the construction corridor intersected substantial stands of yucca (both *brevifolia* and *schidigera*).

29-4 The Mojave Expansion DEIR/S (p. B-10) excludes species of Opuntia from salvage without explanation, although it is well-known that all cacti are very slow to recover from grading.

29-5 The Mojave Expansion DEIR/S (p. B-10) also states that only "smaller Joshua trees, of a size where transplanting is likely to be successful, will be transplanted. The maximum size that meets this criterion should be stated, and the source cited.

29-6 (2) General Measure 17 of the ROW Grants for the existing Mojave and Kern River pipelines stipulates that

> "The Holder shall minimize the amount of vegetation removed, and where it is removed leave the roots intact."

General Measure 58 of the ROW Grants states that

> "During construction in sensitive areas, the Holder shall clear the minimum ROW width possible and minimize ROW damage where possible (e.g., not stripping vegetation less than four inches in height, leaving trees standing and/or mowing taller vegetation as opposed to clearing, the last being particularly desirable in Mojavean shrub communities)." [emphasis added].

These mitigations were not accomplished on the Mojave and Kern River pipeline corridors; the nominal construction corridors (75 feet wide) were regularly exceeded in areas with no apparent construction difficulties (the width of construction corridors for Kern River and Mojave pipelines over 240 miles of gentle terrain averaged 89 feet and ranged between 68 and 207 feet; Wilshire, 1992a), and there is no evidence that roots and root crowns were left intact to promote revegetation (Wilshire, 1992a).

However, the same mitigation (MPM 31; restated as a clear requirement on p. 5-34), is proposed by the Mojave Expansion DEIR/S,

> "Minimize blading, leaving root crowns intact to enable some species to recover more quickly."

29-3 We disagree. Reporting progress on the original Mojave Pipeline project is an ongoing activity in the FERC Certificate issued in Docket No. CP89-1-000 and is beyond the scope of this EIR/EIS.

29-4 The Project Revegetation Requirements (appendix B) excludes *Opuntia* species from the salvage and replanting discussion because every effort would be made to avoid these cacti completely. All Bakersfield cactus plants were avoided during the construction of the original Mojave pipeline, and no plants were observed along the Northward Expansion route during the 1993 and 1994 field surveys. See discussion in section 5.6.3.2.

29-5 As discussed in section 5.4.3.1, the FERC and SLC staffs recommended that Joshua trees taller than 8 feet be avoided by construction activities. Trees shorter than 8 feet occurring within the right-of-way would be salvaged and replanted after construction. See changes in section 2.4.1 of appendix B.

29-6 See response to comments 29-1 and 29-3.

29-6 and, p. A-3 states that,

> "The nominal construction right-of-way width shall be limited to no more than 75 feet. However, additional construction right-of-way width may be used...in areas such as steep slopes....to ensure safe construction....The maximum construction right-of-way width shall be less than 100 feet, unless topographic conditions in a side-slope area require a wider construction right-of-way in limited areas."

Even without the qualifying statement allowing enlargement of the construction zone for the Mojave Expansion project as stated above, the existing Kern River and Mojave construction corridors averaged 131 feet wide over 53 miles of moderately steep to steep terrain, and ranged from 79 to 273 feet (Wilshire, 1992a).

(3) General Measures 4 and 10 of the ROW Grants for the existing Kern River and Mojave pipelines require restoration of the topography of the areas affected to near its original contour and to not alter the drainage of the affected areas. This same mitigation is stated on p. B-5 of the Mojave Expansion DEIR/S. The importance of this requirement is evident in desert regions where alluvial fan drainage systems are very intricate. Failure to restore the drainages (restore surface to near original contour) on the existing Kern River and Mojave corridors has resulted in common diversion of drainages along the disturbed zone with consequent accelerated erosion problems (Wilshire, 1992a, b; 1993; 1995).

p. B-20 of the Mojave Expansion DEIR/S states that should monitoring reveal the "presence of serious hydrologic or vegetative problems...remedial actions will be proposed as necessary." Erosion problems resulting from diversion of unrestored drainages along the existing Mojave pipeline construction corridor apparently were identified, but the "remedial" action taken undermines confidence in the practical outcome of recommendations in the Mojave Expansion DEIR/S. Instead of restoring the drainage courses across the construction zone in compliance with the stated mitigations, the gullies formed by stream diversion were plugged by sandbags and rocks. What was in mind is not clear, because, as might have been anticipated, they were breached in short order, either by erosion around the ends of the plugs or simply by breaking the sandbags apart and washing them away. Erosion goes on apace, as I again documented in January, 1995.

Similar problems arose when serious erosion occurred in steep terrain in the Tehachapi Mtns. Substantial stretches of like terrain will be crossed by the Mojave Expansion project. Some of those areas were protected by degradable netting or straw. There is no doubt that the problem was ameliorated, but the results still are not satisfactory for reasons that should have been apparent from the beginning. In places, water bars were were unprotected and left to drain directly onto uncovered parts of construction corridor, which continues to cause serious erosion and sedimentation of stream channels. In other places, the disturbed area is so wide (275 feet) that runoff concentrated by the water bars is eroding the stream channel into which it is dumped; moreover, some of these very long bars slope upstream, so as to dump the intercepted runoff above the construction zone. In addition, a non-jute type of netting used in places has deteriorated rapidly with the result of renewed accelerated erosion because of insufficient plant cover. These same problems are found along the Kern River and Mojave corridors throughout the Mojave Desert in steep terrain; nothing at all has been done to remediate them. Again, actual performance undermines confidence in the mitigations recommended.

29-7 (4) The meaning of the criterion for "successful" revegetation (Mojave Expansion DEIR/S, p. B-20),

> "....nonnusiance vegetation is similar in density to adjacent undisturbed lands, based on representative visual surveys and random sampling in the field."

should be more clearly stated. It cannot, of course, refer to habitat recovery, which must include restoration of species diversity as well as density. It is too general to indicate restoration of surface stability, because that could require restoration of deep-rooting plants as well as surface cover. If the term is to apply to surface stability or ecosystem functions, it must include species diversity and cover as well as density.

29-8 The further statement, Mojave Expansion DEIR/S, p. B-20) that

> "If the vegetation cover is considered unsuccessful or if there is a need for noxious weed control measures, the revegetation specialist will be consulted to determine the need for additional restoration measures (such as reseeding) based on site conditions"

is inadequate, because, on the existing Kern River and Mojave corridors, there are numerous areas (outside of washes) that do not meet the criterion for "successful" revegetation even now. Moreover, there are numerous stretches of the corridors that are dominated by tumbleweed in far greater abundance than found in adjacent undisturbed areas (for example, west from Kingston Rd. in Shadow Valley, there is virtually nothing but tumbleweed in the construction corridor, and it is present in the corridor in great abundance in the Tehachapi Mtns.).

The term "recover" as applied to Mojavean creosote scrub communities also needs definition. It is stated in several places in the Mojave Expansion DEIR/S (for example, p. ES-8) that this community takes 20 to 50 years to "recover." There is ample evidence that in many parts of the desert, this community has not recovered to pre-disturbance species diversity, density, and cover in 45 years (e.g., Prose and others, 1987), and my reexamination of these areas indicates little improvement after 52 years. Projections in excess of 100 years for recovery of this community were made by Webb and Wilshire (1980).

Probably the most effective mitigation available, short of no project, is corridor-sharing ("looping" expanded to all available construction corridors, not just company-owned ones), which reduces the amount of new land disturbed. The "looping" proposed in the DEIR/S is more illustrative of poor planning than good land management because the existing pipeline was installed so recently. Where the existing Mojave and Kern River lines overlap the All American and PG & E lines, the total area disturbed by the most recent lines (Mojave and Kern River) averaged 34 feet less in gentle terrain than twice the average width disturbed by either the Mojave or Kern River lines by themselves; for steep terrain, the newly disturbed land in overlap areas averaged 40 feet less than twice the average of the lines in nonoverlap areas (Wilshire, 1992a). For gentle terrain, this amounts to 20 feet less (55 feet) than the nominal width allowed, but for steep terrain it is 16 feet greater (91 feet; Wilshire, 1992a). It is evident from Staff Recommended Mitigation Measures in the Carlsbad Resource Area (Mojave-Kern River-El Dorado DEIR/S, 1987, p. 3-31) that much better performance can be achieved—in this case, the ditch line was to be not more than 20 feet from the existing ditch lines; and the FEIR/S, Celeron/All American and Getty Pipeline projects were restricted to the existing El Paso Natural Gas ROW, with new disturbance limited to the area needed for trenching and stockpiling backfill (Wilshire, 1992a). It seems apparent that many opportunities for corridor-sharing exist along the proposed expansion route; substantial

29-7 See the FERC's new Upland Erosion Control, Revegetation, and Maintenance Plan in appendix A, which now defines successful revegetation as the density and cover of nonnuisance vegetation that is similar to that on adjacent undisturbed lands. Disturbed areas would be seeded in accordance with written recommendations for seed mixes, rates, and dates obtained from the local soil conservation authority or land management agencies except in upland areas where landowners request alternative seed mixes.

29-8 It is certainly not our intention to minimize the importance of the current state of existing Kern River and Mojave corridors; however, we believe that our recommended procedures are sufficient to minimize environmental impact to the maximum extent practicable.

29-8 reductions could be made in the amount of land disturbed by restricting new pipelines to previously disturbed construction corridors.

29-9 The Mojave Expansion DEIR/S proposes for Loops 1 and 2 (p. 4-55) an additional 20 feet of disturbance to expand the facility. It is also stated (p. 5-56) that Loop 3 will be constructed entirely within the existing corridor, which "...was 100 feet wide." All three loops are along routes in which the Mojave construction corridor overlaps that of the All American line for substantial distances. Average width of the zone disturbed by the Mojave line installation is 109 feet for Loop 1, 97 feet for Loop 2, and 111 feet for Loop 3, and the combined width for the Mojave and All American lines averages 152 (only one measurement) for Loop 1, 167 feet for Loop 2 and 162 feet for Loop 3. Thus, there is no clear need for any new disturbance on Loops 1 and 2.

Conclusions

Actual performance in implementing mitigations on the existing Kern River and Mojave pipelines that are identical or closely similar to mitigations recommended in the Mojave Expansion DEIR/S demonstrate that the mere statement of the mitigations will not affect the impacts, which are likely to be substantially worse than stated. It is possible that ARM 9, p. 7-6, requiring two or more "environmental inspectors" per construction spread, could improve the performance during construction. However, little confidence can be had if these inspectors are employed by the project proponent as stated, and does not solve the problem of
29-10 inadequate post-construction monitoring and remedial actions. I suggest that FERC and the responsible agencies select an independent team to oversee compliance for the entire project, that the team comprise experts in soil science, geology, hydrology, biology, engineering, geomorphology, and geophysics (as would have been available to critique plans and performance with participation of USGS and NBS); their time should be paid for by the proponent, but they should answer only to the responsible agencies. I believe also that the problems with the existing pipelines should be fixed, and at least the transplantation required by the ROW Grants, be performed with nursery stock before further consideration is given to an expansion project.

If FERC staff would like to see what is really going on in the desert, I would be happy to lead a field trip.

References

Prose, D.V., Metzger, S.K., and Wilshire, H.G., 1987, Effects of substrate disturbance on secondary plant succession; Mojave Desert, California: Journal of Applied Ecology, v. 24, p. 305-313.

Webb, R.H. and Wilshire, H.G., 1980, Recovery of soils and vegetation in a Mojave desert ghost town, Nevada, U.S.A.: Journal of Arid Environments, v. 3, p. 291-303.

Wilshire, H.G., 1992a, Environmental impacts of pipeline corridors in the Mojave Desert, California: U.S. Geological Survey Open-File Report 92-447, 12 p.

Wilshire, H.G., 1992b, Environmental effects of pipeline corridors in the Mojave Desert: Geol. Soc. America, Abstracts with Programs, v. 24, p. 243.

Wilshire, H.G., 1993, Environmental impacts of pipeline corridors in the Mojave Desert, California: San Bernardino County Museum Association, Quarterly, v. 40, p. 34.

29-9 Where Loop 3 is proposed, the existing right-of-way is 100 feet wide. Where Loops 1 and 2 are proposed, the existing right-of-way is 75 feet wide. Consequently, Mojave would need an additional 20 feet of temporary construction right-of-way in order to construct Loops 1 and 2.

29-10 The FERC and SLC would ensure compliance with the mitigation measures in the EIR/EIS by adopting an environmental inspection and mitigation monitoring plan in which the mitigation monitoring team would work under the direction of the FERC and SLC. Responses to ARMs 5 through 12 would assist us in conducting field inspections and compliance monitoring activities.

Wilshire, H.G., 1995, Environmental impacts of oil and gas pipelines, in Carter, L.M.H. (ed.), Energy and the environment—Application of geosciences to decision-making: U.S. Geological Survey Circular 1108, p. 117-118.

H G Wilshire

Dr. Howard G. Wilshire
1348 Isabelle Ave.
Mtn. View, CA 94040

John W. McKissack & Judith A. McKissack
9620 Huer Huero Road,
Creston California 93432.

Lois D. Cashell. Secretary
Office Of The Secretary
Federal Energy Regulation Commission
825 North Capitol Street, NE
Washington, DC 20426

March 20, 1995.

Reference: Docket No.s : CP93-258-000 et al.

Dear Ms. Cashell:

30-1 Om January 5,1995, we--a group of Livermore property owners--met with Bill Bauer and Dennis Needham of Mojave Pipeline at Wente Bros. in Livermore. Mojave presented a plan and maps which are totally different from the "Mojave Pipeline...Northern Expansion Project Draft:Environmental Impact Report/Environmental Impact Statement, Volumes 1 and 2, dated February 1995 by The Federal Energy Regulatory Commission and The California State Lands Commission--State Clearinghouse No. 94032040 SLC/EIR-646.

I was perplexed because of the diversity between the two plans. I still object to the plan presented January 5, 1995 because it yet continues to environmentally completely destroy our property.

Subsequently, I received a letter from Philip R. Wente indicating that a preferred route --established by Mojave and property owners--for the pipeline would bring the pipeline --in Livermore--through the county road right of way, underneath the asphalt, as follows: south along Greenville Road to Tesla Road, then west on Tesla Road to Wente Street, south on Wente Street to Marina Avenue, west on Marina Avenue to Arroyo Road, south on Arroyo Road to Wetmore Road, west on Wetmore Road to Vallecitos Road, then southwest on Vallecitos Road out of the Livermore valley. Mojave adjusted this preferred route. The adjustment would bring the route west past Greenville Road on Patterson Pass Road to Vasco Road then south to Tesla Road on Vasco Road then resume the afore mentioned route We find this route acceptable..

yours truly,

John W. McKissack and Judith A. McKissack

30-1 Thank you for your letter. As a result of public comment, we have recommended that Mojave construct the route primarily within road rights-of-way through Livermore. See section 3.4 for a description of the Livermore/Roadway Variation.

CITY OF PLEASANTON
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CITY ATTORNEY
484-8003
CITY CLERK
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March 20, 1995

Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

Dear Ms. Cashell:

RE: **Mojave Pipeline Company Northward Expansion Project**
Docket Nos. CP93-258-000, et al.

After reviewing the draft Environmental Impact Report/Environmental Impact Statement, the City of Pleasanton feels that this document is insufficient. The document identifies several route variations which were recommended by municipalities and other agencies to improve Mojave's proposed project; however, the Draft EIR/EIS fails to address the environmental implications of these routes. Moreover, the route variations suggested by the City of Pleasanton are identified incorrectly in the EIR/EIS.

31-1 As we have previously stated, Pleasanton would prefer a route avoiding the Pleasanton-Dublin area altogether, since there appears to be no customer base here. We believe that such routes exist, and are as feasible as those shown traversing the Pleasanton-Dublin area. If, however, a route variation through this area is still felt worthy of analysis, we would suggest seriously considering route variations which avoid or minimize routes in presently urbanized areas.

Such a route variation preferred by the City of Pleasanton is identified as the Northeast Pleasanton Route Variation in the Draft EIS/EIR. However, it was intended to proceed north along Isabel Avenue, west along Stanley Blvd. to the private Rhodes & Jamieson El Charro Road, north along El Charro Road across Interstate 580, west along the north side of Interstate 580 to Tassajara Road, and west along Dublin Boulevard to meet the route proposed by Mojave Pipeline. As shown in the EIR/EIS, the Northeast Pleasanton Route Variation is an inviable alternative as it intersects the gravel pits, as well as the planned ground water recharge and chain of lakes. As proposed by the City of Pleasanton, this variation only traverses urbanized areas along Dublin Blvd. from Dougherty Road to San Ramon Road. Please note that this area is a heavily used commercial area and is not ideal due to construction impacts.

The Pleasanton Ridge Route variation was intended to remain along a dirt road at the top of the ridge. The route shown in the EIR/EIS cuts through previously undisturbed park land and open space. With this letter, we are including maps which show the corrected alternate routes. Please consider these routes for the Final EIR/EIS, and discontinue any further analysis of the inaccurate routes shown in the Draft EIR/EIS.

As for the other routes, we are very concerned about the area of the Oakland segment from mile point 2.2 through mile point 4.6. This portion of the pipeline is proposed to be installed

31-1 Thank you for your comments. Mojave has dropped the Oakland Segment from the project; therefore, no pipeline construction would occur in Pleasanton.

along Vineyard Avenue. A major water line was recently installed within this right-of-way to provide water for Pleasanton and Dublin areas. Vineyard Avenue is a fairly narrow street with no plans for street widening. Major residential projects are existing, planned, and currently being constructed in this area. The proposed pipeline could potentially conflict with city utilities planned along the Vineyard corridor.

In addition, we are concerned with the area of the Oakland segment between mile point 11.8 and mile point 12.3. There is a large residential project in this area, and many existing utilities in this portion of Dublin Canyon Road. We believe that a more viable alternative would be for the pipeline to stay along the north side of Interstate 580 until mile point 12.3.

If you have any questions regarding the issues presented above, please contact me at (510) 484-8023.

Sincerely

Brian W Swift

Brian W. Swift, Director
Planning and Community Development

Attachment

cc: Mary Griggs, SLC Environmental Project Manager
California State Lands Commission
1807 13th Street
Sacramento, CA 95814

Mr. Michael Boyle, Environmental Project Manager
Federal Energy Regulatory Commission
Office of Pipeline Regulation, Room 7312
825 North Capitol Street NE
Washington, DC 20426

STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY
PETE WILSON, *Governor*

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
REGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737
(510) 540-3724

March 20, 1995

CERTIFIED MAIL

Mr. Michael Chiratti
Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street #121
Sacramento, California 95814

Dear Mr. Chiratti:

**MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT- EIR/EIS-
STATE CLEARINGHOUSE NUMBER: 94032040**

The Department of Toxic Substances Control (DTSC) has reviewed the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the above cited Mojave Pipeline Project. DTSC's main concern is with the significant adverse environmental impacts which would result from choosing the Alternative 2 Route-San Francisco Segment as shown in Figure 3.3.3-1.

32-1 The proposed Alternative 2 Route transverses the former Southern Pacific Brisbane Railyard, which is now owned by Tuntex Properties Inc. (U.S.A.), and is known as the Bayshore Railyard. This property is a State of California listed hazardous waste site (California Health and Safety Code, Division 20, Chapter 6.8, Section 25356). An extraction and treatment system for the remediation of groundwater contaminated with Volatile Organic Compounds (VOCs) has been constructed on the site. The proposed Alternative 2 route appears to pass directly through the site of the treatment system, which is approximately 10 acres in size and consists of a well field of 8 extraction wells, 28 groundwater monitoring wells, and a liquid-phase carbon adsorption treatment plant with all appurtenant underground piping and wiring.

32-2 The proposed route is also directly adjacent to the closed Brisbane Municipal landfill which is under the jurisdiction of the California Integrated Waste Management Board and the San Francisco Bay Regional Water Quality Control Board.

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32-1 Thank you for your letter. After further review of the more detailed maps of the former Southern Pacific Brisbane Railyard provided by the DTSC, it appears that the proposed route crosses the area entirely within the railroad right-of-way. We believe that use of the adjacent railroad right-of-way through this area would avoid impact to the extraction and treatment system. See also response to comment 22-3.

32-2 Proper procedures would be used in crossing this landfill. See response to comment 2-22.

32-3 In addition, the draft EIR/EIS does not mention that the proposed Alternative 2 Route adjoins the San Bruno Mountain Habitat Conservation Area, formed under the jurisdiction of the federal Endangered Species Act.

All of these matters must be thoroughly discussed and appropriate mitigation measures assured before the San Francisco Segment of the Alternative 2 Route could be constructed.

Finally, we would like to note that the DTSC Regional Offices were not consulted during the preparation of the draft EIR/EIS, even though the Region 1 office is directly responsible for the management of all hazardous waste sites in the Central Valley, and the Region 2 office is responsible for management of all hazardous wastes sites in the coastal area from Humboldt to Monterey counties. The information presented in the EIR/EIS would be much more complete and much more accurate had the regulatory agencies been consulted prior to preparation of the draft document.

If you have any questions on these comments please contact Beth Bufton of my staff at (510) 540-3840.

Sincerely,

Barbara J Cook

Barbara J. Cook, P.E., Chief
Site Mitigation Branch

CERTIFIED NO; 393 790 113

cc: Mr. Michael Boyle
Federal Energy Regulatory Commission
Division of Public Information
Office of Pipeline Regulation Room 7312
825 North Capitol Street NE
Washington DC 20426

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 13th Street
Sacramento, California 95814

32-3 Table 4.7.3-1 of the draft EIR/EIS identified the Hunters Point Segment at MP 22.6 as being near San Bruno Mountain State and County Park. The table has been revised to refer to the San Bruno Mountain Habitat Conservation Area, which is separated from the proposed route by U.S. Highway 101 and the Peninsula Corridor Joint Powers Board Railroad right-of-way. The proposed project would have no effect on the San Bruno Mountain Habitat Conservation Area.

City of Pittsburg
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March 21, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426
Attention: Mr. Michael Boyle

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

SUBJECT: MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT EIR/EIS
Docket Nos. CP93-258-000, et al.

Dear Mr. Boyle and Ms. Griggs:

Thank you for the opportunity to respond to the above referenced Environmental Impact Report and Environmental Impact Statement submitted to the City of Pittsburg for comments.

The Mojave Pipeline Operating Company proposes to construct between 660 and 681 miles of pipeline to expand its natural gas distribution system to serve northern California industrial users. Included in this project is a North Mainline which terminates in Martinez. Segments of Mojave's proposed North Mainline Route are shown to traverse within or adjacent to the City of Pittsburg.

33-1 Two alternate routes for this segment are identified in the EIR/EIS: the "San Joaquin Valley Pipeline Alternative Route" (Map A2) and the "Southern Pacific Railroad Alternative Route" (Map B2). It is the City's opinion that the Southern Pacific Railroad Alternative will have far fewer environmental and social impacts than either of the other two routes. Consequently, we concur with the recommendation on page ES-4 of the EIR/EIS "that the...Southern Pacific Railroad Alternative Route is environmentally superior to the corresponding segment of the proposed route, and we recommend its adoption."

33-1 Thank you for your comments.

33-1 The SPRR Alternative will utilize the generally flat terrain of the existing railway track right-of-way. Alternative of the underground pipeline will be far easier with this Alternative and will have little adverse impacts on existing land uses since there are few residences within proximity to the right-of-way. This route is also much closer to the industrial users on the Antioch Segment.

The proposed North Mainline Route and corresponding Antioch Segment, however, will, apparently, be adjacent (within 50 feet) to approximately 150 single-family lots within the City of Pittsburg. Construction impacts including noise, dust, safety, and visual on these residential areas will be substantial, especially since construction will be more difficult in the hilly terrain.

The San Joaquin Valley Alternative does not impact existing residential uses, however, there are hundreds of approved and proposed homes between Highway 4 and Badly Road. Final grading and road alignments have yet to be determined for these approved subdivisions. Construction plans for the pipeline may differ significantly and/or be incompatible with the subdivision improvements. Further, this route will be located within residential zoned parcels. Because final maps have yet to be recorded on these approved projects the parcels are considered unsubdivided lands. Pittsburg Municipal Code Section 18.80.030.C requires a conditional use permit for underground public utility transmission facilities within unsubdivided residential-zoned property.

33-2 Map A2 does not identify the Keller Canyon Landfill east of Bailey Road. What impacts on the landfill operation will the San Joaquin Alternative Route have and how might it affect the County's use permit? This route also identifies the Buchanan Road Bypass as an impacted land
33-3 use. The alignment of the Bypass has not yet been determined. Impacts of this route on the various alignments must be considered.

In conclusion, we agree with Recommended Mitigation Measures ARM 4 on page 7-4 that the proponent adopt the Tracy to Antioch Southern Pacific Railroad Alternative Route.

Sincerely,

Randy Jerome
Senior Planner

RJ/mojave.ltr

33-2 With the adoption of the FERC and SLC staff's preferred Tracy to Antioch Southern Pacific Railroad Alternative, there would be no affect on the Keller Canyon Landfill.

33-3 With the adoption of the Tracy to Antioch Southern Pacific Railroad Alternative, the proposed Buchanan Road bypass would no longer be affected by construction of Mojave's North Mainline.

CITY OF ANTIOCH CALIFORNIA
ANTIOCH CA 94509 (510) 779-7035
CITY HALL THIRD AND H PO 130

March 21, 1995

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

SUBJECT: MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT
DRAFT EIR, EIS
Docket Nos. CP93-258-000, et al.
CA Clearinghouse No. 94032040

Ladies and Gentlemen:

34-1 The City of Antioch concurs with the evaluation of the main line alternatives as outlines on Pages 6-1 and 6-2. We strongly recommend that the Southern Pacific Railroad route, as described on Page 6-1, be utilized. The use of the Southern Pacific Railroad's right-of-way through Antioch would greatly reduce impacts when compared to either Mojave's or the "SJVP" routes. In fact we believe that the draft EIR does not adequately address the proposed route as the EIR completely ignores the substantial amount of development that exists along the proposed route. Selection of the alternate railroad alignment would avoid these impacts.

We wish to stress that the impacts of Mojave's proposed route would have a far greater impact on existing and future developments than outlined on table 5.7.1.3-1 at page 5-93 ("Areas of Potential Land Use Concerns Along the Proposed Route"). This table does not address the "85" units within the existing "Mira Vista Hills" development, yet the table 4.7.1.1-3 on page 4-113 ("Residences Within 50' of Construction Right-of-Way") lists the 85 units as the largest single group of units to be effected along the north mainline.

Mojave's route would additionally impact several approved yet currently unbuilt single family neighborhoods. Over 50 units are to be built west of the existing "Mira Vista Hills" area (at approximately mile 271.5 to 272). An additional 25 units have been approved south of Frederickson Drive (mile 269 to 269.8) in a project to be known as "Black Diamond Estates". And finally, 618 acres around milepost 268 have been recently annexed to the City with an "Estate Residential" General Plan Designation. Several hundred units have been proposed as part of a pending Specific Plan approval.

34-1 Thank you for your comments. We have revised section 5.7.1 to include the developments identified. We believe that recreational and visual impact and mitigation in Black Diamond Regional Preserve were adequately identified in sections 5.7.3.3 and 5.7.4.3 because we believe that we have recommended adequate mitigation to restore the area to preexisting conditions. We have also added the recreational beach and field area in Contra Loma Regional Park to table 4.7.3-1.

34-1 Two other areas in which the impacts of Mojave's Mainline Route have not been sufficiently documented relate to visual and recreational features. The discussion on "Visual Resources" on Page 4-109 does not address the short and long-term visual consequences of major grading activities in the hillside area in and around the Black Diamond Regional Preserve. The grading operations could be highly visible from the City below, and the vegetation may never be totally restored to pre-existing conditions. Recreation issues addressed by Table 4.7.3-1 on Page 4-117 ("Recreation and Public Interest Areas Crossed By or Near the Proposed Route") does not acknowledge the active recreational beach and field area at Contra Loma Regional Park.

34-2 In summary, the discussion on Page 6-1 regarding the reduced impacts of the Southern Pacific Route should be expanded to include the relative effects on the man-made environment (homes, streets, parks) as well as the natural environment (tiger salamanders and kit foxes). With similar regard for the built environment, the pending analysis in the Final EIR/EIS of the "minor routes" (as discussed on Page 7-2), should indicate that the City's proposed "Railroad" variation as outlined on Pages 3-29 and 3-33 has the fewest impacts.

Thank you for the opportunity to comment.

Sincerely,

Victor Carniglia
Deputy Director Community Dev.

VC/CMS/cw

copy/Stan Davis, Dir Public Works, City of Antioch
David Rowlands, Jr., City Manager
Douglas R. Ward, Acting Dir Comm Dev
Joe Brandt, Assistant City Engineer
Michael Boyle, Fed Energy Regulatory Comm

34-2 We have amplified the discussion on variations in section 6 as recommended by the commentor.

CITY of MODESTO
Community Development Department

March 23, 1995

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Subject: Comments on Mojave Pipeline EIR/EIS (Docket Nos. CP93-258-000, et al.)

To whom it may concern:

The City of Modesto is transmitting to you its comments on the Draft Environmental Impact Report/Environmental Impact Statement for the Mojave Pipeline Northward Expansion Project. Attached are comments from City Departments that have determined the proposed pipeline extension may have an impact on their facilities or operations and would like their concerns addressed in the Final EIR/EIS.

Should you need further assistance, please call me at (209) 577-5280.

Thank you for the opportunity to comment on the EIR/EIS.

Sincerely,

Steve R Nish

Steven R. Nish,
Associate Planner

sn
Attach: comments on EIR/EIS

801 11th Street, P.O. Box 642, Modesto, CA 95353
Phone (209) 577-5433, Fax (209) 522-1780, TDD (209) 526-9211

CITY OF MODESTO
FIRE DEPARTMENT

FIRE PREVENTION BUREAU

TO: Steve Nish, Strategic Planning

FROM: Blair Bradley, Fire Prevention Bureau

DATE: March 14, 1995

SUBJECT: Mojave Pipeline - Northern Expansion Project, E.I.R. REVIEW COMMENTS & CONCERNS

The following items will require additional information or clarification:

EMERGENCY RELEASE RESPONSE:

35-1 1. Provide a detailed description of emergency shut-down system.

Is the pipeline equipped with electronic shut-down capabilities? How is the shut-down system is activated? How will the Mojave Pipeline Operating Company (MPOC) mitigate an unauthorized discharge? Do procedures address both construction and operation phases?

Plan elements shall include:

Pressures, volumes, and rates of discharge data,
Built in safety features and systems,
Locations of emergency controls and valves,
Location of company personnel assigned to response roles,
Location of equipment used for emergency leak repairs,
Response times for MPOC personnel,
Emergency contacts or coordinators assigned to release response,
Response actions address typical and unusual locations,
Location and make-up of MPOC response teams/personnel (local vs. distant), etc.

PIPELINE SYSTEM & PRODUCT COMPONENTS :

1. Provide information regarding actual size, volume (cubic feet per minute of product based on the full range of pressures and pipe diameters) and pressure of

---

35-1 Thank you for your letter. We will pass this information request on to Mojave. DOT Minimum Federal Safety Standards in 49 CFR 192 require each pipeline operator to establish an emergency plan that includes procedures to minimize the hazards in a gas pipeline emergency and to establish and maintain liaison with the appropriate fire, police, and other public officials. Although it is beyond the jurisdictions of the FERC and SLC and the scope of this EIR/EIS to analyze the specific details of each emergency plan, the key elements that would be included in the plans are discussed in sections 5.11.1 and 5.11.3. This is an issue that each city's public officials must discuss with Mojave and the appropriate CSFM or DOT representatives.

35-1 each line segment referenced by location. Ranges may be used for standard pipeline diameters and pressures.

2. Specify the maximum and typical release rates, operating pressures, and volume (cubic feet per minute) for each line respective of location.

3. Provide chemical information (Material Safety Data Sheet "MSDS") for the gas. Ranges may be used if component concentrations vary.

4. Describe the pipeline integrity test methods to be used. Provide specification sheets for testing equipment containing radiological (gamma) emitters. Radiological emission testing equipment equipped gamma emitter sources shall comply with NRC and applicable Health & Safety, Building and Fire codes. MPOC shall notify the Modesto Fire Depa4rtment when gas will be released during construction and operation phases.

GENERAL ITEMS:

1. East and West access and routing for emergency vehicles.

2. Storm water runoff from construction sites shall be free of contaminants. (National Pollution Discharge Elimination System, NPDES)

3. Permits, as specified in the 1991 Uniform Fire Code, may be required.

4. The project activities, construction and designs shall also comply with the City of Modesto Fire Code (1991 Uniform Fire Code).

5. Additional requirements, if applicable, shall be corrected prior to pipeline operation.

MAR 1995
Received
Community Development Dept.

CITY OF MODESTO

M E M O R A N D U M

DATE: March 7, 1995

TO: Steve Nish, Associate Planner

FROM: Van Switzer, Deputy Director - Engineering

SUBJECT: Comments on the Mojave Pipeline EIR/EIS

In general, I think the draft EIR does a good job of identifying the major impacts that this particular project will have and sets forth reasonable mitigation measures. With regard to the impact of the construction project within the City of Modesto, I'd offer the following suggestions:

35-2

- Mojave will be required to obtain an encroachment permit from the City of Modesto for any work within the public right of way within the City Limits. (All applicable fees and charges would be due and payable prior to the issuance of an encroachment permit.)
- Construction of Mojave's pipeline within the public right of way shall conform with any applicable City Codes, rules and regulations, including, but not limited to the City's standard engineering specifications. Prior to commencing work within the city of Modesto, as a part of the encroachment permit process, Mojave should be required to provide a traffic handling plan that will need to be approved by the City's Transportation Division.
- Prior to Construction, Mojave should get approval from the City as to the times of day in which construction activities will occur and duration of specific activities.
- Mojave will be required to pay for all applicable charges for City inspection staff to monitor Mojave's work within the public right of way or across public lands within the city of Modesto. Prior to start of work, Mojave should submit to the City of Modesto a schedule of their construction activities including the start of construction, durations of various segments of pipeline through the city of Modesto and an anticipated completion date. Said construction schedule shall be subject to approval by the City of Modesto and shall take into account any special events or other activities going on within the city which the construction project may disrupt. The EIR/EIS talks about open cutting local roads. There may be one or more roads within the city in which Mojave maybe required to jack and bore pipeline under the road. This will be determined as a part of the encroachment permit process.
- Prior to construction, the City shall approve all contractor staging areas for construction within the City Limits. In addition, all proposed stockpile areas and disposal sites shall be approved by the City and appropriate permits obtained.

35-2 We will pass this information request on to Mojave. Mojave would meet with the appropriate city officials and develop detailed construction plans and schedules during their permit application process. Mojave would also require its contractor to notify USA at least 48 hours prior to digging as required by the State of California. Mojave would notify all fire departments with jurisdiction along the pipeline route prior to operation. The encroachment permit has been added to table 1.4-1.

35-2
- Prior to construction, Mojave shall be required to notify Underground Service Alert (USA) of its impending work and request utility markings.
- Prior to commencing operation of the line, Mojave needs to notify the Fire Department of time and schedule for beginning operation.

I'd also suggest that you touch bases with Doug Carmody and allow him to review the Draft EIR/EIS documents. There may be some issues that Doug would like to address in relation to the 9th Street Railroad Relocation Project.

I provided Ed von Borstel and Alice Tulloch with a copy of your February 23, 1995 memo. They may wish to add their thoughts as well.

VWS:cd

cc: Marshall Elizer, Public Works & Transportation Director

CITY OF MODESTO

MEMORANDUM

March 9, 1995

TO: Steve Nish

FROM: SENIOR CIVIL ENGINEER ULM

SUBJECT: Mojave Pipeline EIR Comments

In addition to Van's comments please add the following:

35-3 The route of the pipeline has the potential to conflict with a number of public facilities planned for the near future. All pipeline locations and depths shall be approved by the City prior to bidding the project.

The most notable of these upcoming projects is the Tuolumne Blvd. extension and the new gravity industrial sewer trunk planned for the Beard Industrial Area.

Rich Ulm

RU/ru

35-3 Mojave contacted the City of Modesto to identify potential conflicts with future public facilities and was informed that the City has only initiated preliminary plans for the projects mentioned and could not furnish specific detail at this time. Mojave will coordinate with the City of Modesto during its detailed design phase to avoid conflicts.

MAR 1995

CITY OF MODESTO

MEMORANDUM

DATE: March 7, 1995

TO: Steven Nish, Associate Planner

FROM: Douglas J. Carmody, Project Manager
Public Works and Transportation Department Doug

SUBJECT: Proposed Mojave Pipeline

35-4 I have reviewed the drawings 11 and 11A of the report on the above project. This project will intersect the city's railroad relocation project in at least one place. The drawings are too general to pinpoint the routes of the proposed pipelines, but I have attached hereto a plan view of our Tuolumne Boulevard Extension (TBE) on an aerial photograph. On it I have sketched the likely position of the two pipelines in the Tuolumne River flood plain.

Our TBE is to be largely in the Tuolumne River Regional Park (TRRP). Both pipelines cross that park. It is essential that the pipelines do not inhibit development of the TBE nor the TRRP.

DJC:cf

Attachment

c: R. Marshall Elizer, Jr., Public Works & Transportation Director
Van Switzer, Deputy Director - Engineering
Ed von Borstel, Deputy Director - Transportation
Pat Foran, Assistant Parks & Recreation Director
Rich Ulm, Senior Civil Engineer
Bob Barton - DeLeuw, Cather

35-4 See response to 35-3.

CITY OF MODESTO

MEMORANDUM

March 1, 1995

TO: Steve Nish, Associate Planner

FROM: Harlan Westenberg, Business Development Officer

SUBJECT: Mojave Pipeline

35-5 The installation of a natural gas pipeline will provide Modesto industry with an option in obtaining their natural gas supplies. Therefore, energy costs, because of competition, will probably be lower, improving Modesto's competitive position.

The pipeline should have a positive impact in our efforts in providing new employment opportunities for Modesto citizens.

Harlan Westenberg

Harlan Westenberg
Business Development Officer

HW/tf

MAR 1995
Received
Community
Development Dept.

35-5 Comment noted. No response is required.

CITY OF MODESTO

M E M O R A N D U M

March 9, 1995

TO: Steven Nish, Associate Planner

FROM: Fred D. Allen, Jr., Parks Planning & Development Manager

SUBJECT: **COMMENTS ON THE MOJAVE PIPELINE EIR/EIS**

35-6 I have reviewed the proposed study and it appears that the proposed gas line has the potential of imposing a significant adverse impact on the future park development in the Tuolumne River Regional Park. The proposed gas line will bisect the center segment of the Regional Park. This segment is included in the Land Use Plan for the Regional Park that was adopted by the County of Stanislaus, City of Ceres, and City of Modesto in 1968.

The park land in question is located north of Tuolumne River, east of the Southern Pacific Railroad Right-of-Way, west of Dry Creek, south of Tuolumne Boulevard, and in the 100 year flood plain of the Tuolumne River.

I am assuming that the engineering firm designing the project will hold a public hearing and review process of all bid documents prior to completion of those documents. Please include the City on any mailing lists for those hearings and provide the Parks and Recreation Department with an opportunity to review your proposed bid documents for gas line improvements located within our park site prior to advertising the project for bid.

If you have any questions, please contact me at (209) 577-5353.

cc: Patrick Foran, Assistant Director of Parks & Recreation

35-6 We will pass this information on to Mojave.

CITY OF MODESTO

MEMORANDUM

Utilities Division **DATE:** March 14, 1995

TO: Steve Nish, Associate Planner

FROM: Alice Tulloch, Deputy Director-Utilities

SUBJECT: **Mohave Pipeline EIR**
Comments Regarding Water, Sewer and Storm Drainage

35-7 The proposed pipeline will cross many of the City's water, sewer, and storm drainage pipelines. City standards require minimum sanitary separations from water lines, gravity pipeline alignments may conflict with the proposed pipeline. Of special concern is the City's new large diameter water transmission pipeline, which crosses the proposed Mohave pipeline alignment near MID Lateral No. 4.

The project proponent should design the pipeline to avoid conflicts or damage to City's facilities. The City will be glad to work closely with the proponent during design. In addition, Utility Service Alert (USA) should be notified before construction begins.

AT:kk:mar/0026

MAR 1995
Received
Community
Development Dept.

35-7 See response to comment 35-2.

BOLD, POLISNER, MADDOW, NELSON & JUDSON
A PROFESSIONAL CORPORATION

JEFFREY D. POLISNER
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FREDERICK BOLD, JR.
(RETIRED)

March 23, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

Subject: FERC Docket Nos. CP93-258-000, et. al., and
CA Clearinghouse No. 94032040 - Draft EIR/EIS
Mojave Pipeline Company's Proposed Project -
Comments of Intervenor Contra Costa Water District

Ladies and Gentlemen:

This office represents Contra Costa Water District (CCWD), an Intervenor in these proceedings. On behalf of CCWD, thank you for the opportunity to review and comment on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Mojave Pipeline Northward Expansion Project (Project). CCWD's comments address all sections of the document except the appendices. Portions of the Project as proposed are within the existing CCWD service area boundaries and the Kellogg Creek watershed which is being acquired for CCWD's Los Vaqueros reservoir project.

CCWD has documented its opposition to the preferred Project alignment to the Federal Energy Regulatory Commission (FERC), State Lands Commission (SLC), and Mojave Pipeline Company (Mojave), as analyzed in the Draft EIR/EIS, on numerous occasions in writing and at public meetings on the environmental document. Copies of CCWD's previous written objections and comments were distributed to FERC and SLC at the public meeting held in Livermore, California on February 28, 1995 on the Draft EIR/EIS.

36-1 The Draft EIR/EIS is inadequate with respect to: (1) the lack of sufficient environmental resource information for a proper analysis of the impacts arising from the preferred Project along the North Mainline alignment in the Kellogg Creek watershed; (2) incorrect assumptions and errors with respect to CCWD's Los Vaqueros project utility relocation easement; and (3) the lack of sufficient mitigation to protect CCWD's water supplies and conveyance system from Project impacts. Detailed comments on the Draft EIR/EIS by page reference are enclosed. The following summarizes the general areas that CCWD finds to be insufficient to support the statement that the proposed project "would be an environmentally acceptable action" (Pages ES-10 and -11):

36-2 1. The Draft EIR/EIS does not include specific route alignment information (on biological and cultural resources, land use, soils and topographic conditions) within the Kellogg Creek watershed. Such survey level information is necessary in order to make an adequate analysis and prescribe appropriate mitigation within this sensitive environment.

36-1 Thank you for your comment letter. We disagree that the EIR/EIS is inadequate or that it fails to comply with NEPA and CEQA. CEQA and NEPA require that the analysis focus on potentially significant environmental effects. In particular, new language added to CEQA by the legislature in 1994 requires that to "provide more meaningful public disclosure, reduce the time and cost required to prepare an (EIR), and focus on potentially significant effects on the environment of a proposed project, lead agencies shall...focus the discussion in the (EIR) on those potential effects on the environment...which the lead agency has determined are or may be significant. Lead agencies may limit discussion on other effects to a brief explanation as to why these effects are not potentially significant." We believe that the information used is adequate and the analysis of effects on the Kellogg Creek watershed proper to determine impact and appropriate mitigation because we believe that all significant effects have been identified and appropriate mitigation recommended. (See response to comment 36-2.) Regarding the CCWD's Los Vaqueros project utility relocation easement, our conclusions based on the facts presented are different from the CCWD's. See responses to comments 36-4, 36-5, 36-6, and 36-25. However, in response to CCWD's and others' concerns, we developed and analyzed the Tracy to Antioch Southern Pacific Railroad Alternative Route and found it to be environmentally superior to the proposed route. ARM 4 states "Mojave shall adopt the Tracy to Antioch Southern Pacific Railroad Alternative Route..." The FERC and SLC staffs will recommend to their respective Commissions that our additional agency-recommended mitigation measures be included as specific conditions to any approving Certificate for Mojave's project. We disagree that mitigation is inadequate to protect CCWD's water supplies and conveyance system from project impact because constructing over or under utilities by boring or bridging as described in the draft EIR/EIS would avoid significant impact. See response to comment 36-3.

36-2 We believe that the specific alignment information within the Kellogg Creek watershed presented in the EIR/EIS is sufficient to make an adequate analysis and prescribe appropriate mitigation. According to Mojave, access to perform biologic and cultural resource surveys in the Kellogg Creek watershed was denied; therefore, our analysis used CCWD documents including the EIR/EISs prepared for the Los Vaqueros project and Vasco Road Utility Relocation as well as information developed during site visits and from interpretation of aerial photography. Based on the extensive analysis presented in CCWD documents, there is no evidence that species or other resources not included in our analysis or addressed by our mitigation could be expected to occur. We have included extensive, species-specific mitigation for biologic resources (see MPMs 29 through 64, and ARMs 23 through 40). We have also required that treatment plans be prepared for eligible cultural resources (see ARM 47). Further, surveys must be completed in previously inaccessible areas prior to construction (see ARM 39). These measures would reduce the impact to less than significant. Similarly, we do not believe that further analysis of land use, soils, or topographics conditions would reveal additional significant impact that has not been addressed by our mitigation measures.

Office of the Secretary
Federal Energy Regulatory Commission

California State Lands Commission
Attention: Ms. Mary Griggs
March 23, 1995
Page 2

36-3 2. All of the issues and concerns raised during public scoping and through written comments have not been addressed (despite what is stated on Page 1-11). One such flaw is the lack of attention given to the documentation of existing conditions and a proper analysis of Project impacts on CCWD's existing water supply system in order to provide sufficient mitigation.

36-4 3. The Draft EIR/EIS incorrectly states that CCWD's alternative route suggestions were "addressed by modifications to the proposed pipeline route through the Kellogg Creek watershed" (Page 3-3). CCWD's position has consistently called for a realignment of the Project to totally avoid the watershed. CCWD objected (at public scoping meeting and with NOP/NOI written input) to Mojave's revised Project alignment which included the use of CCWD's utility relocation easement designed exclusively to handle the relocation of the existing utility lines in the watershed. This easement covers a very carefully selected alignment that traverses extremely steep topography, some with landslide prone soils, and which winds its way through rich cultural and biological resources. It was not designed to handle future additional utility lines and its environmental clearance did not include the possibility of introducing another major utility line, with both construction and operational impacts, to this environment.

36-5 4. There are incorrect citations to the Los Vaqueros Project Stage 2 EIR/EIS as the source for the alternative corridors study in relocating existing utility lines in the watershed. Although the proper information (Vasco Road and Utility Relocation Draft and Final EIR, 1990) was provided to FERC on a timely basis, it has not been cited as a source of information (Draft EIR/EIS, Appendix E), indicating that it may have not been used or not used appropriately. There are also incorrect statements on the width of the utility relocation right-of-way.

36-6 5. The statement that "the corridor (i.e., the CCWD studied utility relocation corridor ranging from one-half to one mile wide) can accommodate an additional pipeline and that the use of the right-of-way by an additional pipeline is a legal, not an environmental, issue" (Page 3-10) is misleading and incorrect. It is misleading because it transposes the broad width of the generally studied "corridor" to the specific "right-of-way" width (of 150 feet or less). The statement is incorrect because of the reasons stated in Item 1, above, and the fact that the easement granted by CCWD to the utility companies is topographically restricted for at least one mile in the segment separating the Kellogg Creek and Herdlyn watersheds, with side slopes ranging from 30% to 65% or greater that preclude the introduction of a fifth major pipeline requiring a level workspace in excess of 75 feet width "on steep grades" as described on Page 5-17. Because the utility relocation effort is scheduled to begin in April 1995, and the Mojave Project will have to wait for future biological opinions and orders to proceed, it is not likely that it can be coordinated to avoid cumulative impacts on the environment (as recommended on Page 5-147). The safety and landslide potential issues alone, with Mojave's construction into the recently installed and mitigated relocated utilities, demonstrates that this is an environmental issue rather than a legal matter as suggested on Page 3-10.

36-3 It is certainly not our intention to minimize the importance of the CCWD's existing water supply system; however, the crossing of existing utility lines is a normal part of pipeline construction and, with the implementation of Mojave's proposed mitigation, is not expected to result in adverse impact. As stated in sections 2.4.2 and 5.3.3.2, Mojave would bore or bridge all water supply canals, aqueducts, and lined irrigation canals. We have revised section 2.4.3 to better describe the construction procedures associated with utility crossings. Further site-specific mitigation measures may be required by CCWD or other permitting agencies and attached to the necessary encroachment permits. Any state or local permits issued with respect to the jurisdictional facilities authorized by a FERC Certificate must be consistent with the conditions of the Certificate. The FERC encourages cooperation between interstate pipelines and local authorities; however, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by the FERC. In section 1.4 we note that, in addition to the FERC, SLC, and BLM, other Federal, state, and local responsible agencies may have permit or approval authority over portions of the proposed project. (See table 1.4-1 to which we have added CCWD's encroachment permit.) Any state or local permits or approvals with requirements that would be in conflict with the FERC Certificate or that would not allow Mojave to meet their obligations under the FERC Certificate would be preempted by its Federal status. In such cases, Mojave would not be required to comply with the conflicting requirements of the state or local permits or approvals; however, permits or approvals and any attached conditions required by state or local regulatory authorities that are not in conflict with the FERC Certificate would not be subject to Federal preemption.

36-4 Mojave's original proposed alignment through the Los Vaqueros Reservoir Project area was changed in response to the CCWD's protestations and was moved into the utility relocation corridor. Given the urbanization in the Bay Area, use of a corridor that has already undergone the necessary environmental studies has merit; however, because of the large number of potentially significant effects on local resources along the route between Livermore and Antioch and the CCWD's continued objections, we have recommended that Mojave avoid the area by using the Tracy to Antioch Railroad Alternative.

36-5 Both the Los Vaqueros Project EIR/EIS and the Vasco Road and Utility Relocation EIR were used in our analysis. See revised appendix E to which the additional citation has been added.

36-6 Our characterization of adding another pipeline to the utility relocation corridor as a legal issue is based on our belief that, with proper engineering, Mojave could "squeeze" into the corridor that already has environmental clearance. The fact that the existing easements cover the entire width of the ridgeline makes this a legal issue; however, to avoid misunderstandings we have revised the text to delete the statement.

Office of the Secretary
Federal Energy Regulatory Commission

California State Lands Commission
Attention: Ms. Mary Griggs
March 23, 1995
Page 3

36-7 6. The Draft EIR/EIS fails to indicate the importance of the Kellogg Creek watershed as an important resource for more passive recreational appreciation (e.g., it is not listed among the sensitive landscapes crossed by the Project, Page 4-109). The watershed will attract vast numbers of users, many who would appreciate views of the existing ridgeline, vegetation and wildlife, rock outcrops and cultural features for their edification and solitude. The Mojave Project has the potential to cause the ridgeline to be lowered, increase the susceptiblity of soil movement (in preliminarily identified landslide prone areas), and alter vegetation, rock outcrops and cultural resources.

36-8 7. The Draft EIR/EIS concedes that mitigation applied to crossings in landslide prone areas "may not ...completely mitigate the potential for pipeline construction to increase the slope instability" (Page 5-5) and that "pipeline construction and operation could worsen this condition, and the impact would remain significant after mitigation" (Page 5-6). Since it is acknowledged that the Project segment through the watershed has "landslide potential" and it presents "potentially difficult excavation" (Page 5-12), it should be clear that CCWD's objections to use of the utility relocation easement by Mojave are not only legal, but also environmental (as noted in Item 5, above).

36-9 8. The Draft EIR/EIS fails to address the need for special conditions, in the form of mitigation measures, to reduce the potential impact of Project crossings of existing CCWD facilities, such as the Contra Costa Canal, and construction activities in the vicinity of CCWD's Mallard Reservoir and Mallard Slough Pipeline. Recommended measures are provided in the enclosed technical analysis of the Draft EIR/EIS for inclusion in the Final EIR/EIS as mitigation, or for special notation in encroachment permit requirements.

36-10 9. CCWD hereby requests copies of the Biological Assessment and Biological Opinion covering the Project in the vicinity of the Kellogg Creek watershed and Contra Loma Reservoir when completed. CCWD will convey conservation easements to the California Department of Fish and Game for 7,241 acres within the watershed area.

36-11 When the EIR/EIS preparer evaluates and responds to the concerns and issues raised in these comments, CCWD believes that the Draft EIR/EIS will be found to be deficient with respect to the analysis of the stated preferred Mojave Project alignment and that FERC and the SLC will not be able to certify the document in its present form for that particular alignment.

36-12 CCWD acknowledges, that the FERC and SLC staffs recommend the adoption of the Tracy to Antioch Southern Pacific Railroad Alternative Route (as originally recommended by CCWD; see cited documentation entered into the February 28, 1995 public meeting record) and recognize it to be "environmentally superior to the proposed route" (Page 6-1) through the Kellogg Creek watershed. CCWD agrees that the Alternative Route is superior, although there may be a question as to whether the level of environmental analysis on the Alternative is sufficient. CCWD urges the

36-7 Comment noted. Table 4.7.3-1 in the draft EIR/EIS listed the Los Vaqueros Reservoir Project, Brushy Peak, and Vasco Caves as recreation and public interest areas crossed by or near to the proposed route. We have added the Kellogg Creek watershed to the discussion of sensitive landscapes crossed by the project in section 4.7.4.

36-8 See response to comment 36-2.

36-9 The draft EIR/EIS acknowledges that local agencies may attach conditions to encroachment permits. We have added CCWD's encroachment permit to table 1.4-1. See response to comment 36-3.

36-10 The biologic assessment and biologic opinions included in the appendices in the final EIR/EIS were prepared for the route recommended by the SLC and FERC staffs (i.e., the Tracy to Antioch Southern Pacific Railroad Alternative Route) and therefore do not address the Kellogg Creek watershed.

36-11 We disagree that the EIR/EIS is inadequate or that it fails to comply with NEPA/CEQA. Neither the FERC nor the SLC expects to certify Mojave's proposed alignment; we have recommended that our respective commissions certify the Tracy to Antioch Southern Pacific Railroad Alternative.

36-12 Comment noted. We believe that the level of analysis for the Tracy to Antioch Southern Pacific Railroad Alternative is adequate. See responses to comments 36-2 and 36-3.

36-12 FERC and SLC to approve and adopt the Tracy to Antioch Alternative Route and require Mojave to adopt it as the construction route for all final plans and permitting.

If you have any questions or require additional information regarding CCWD's facilities, operations, plans and projects, please call Dennis Pisila, Senior Planner (510/674-8119).

Very truly yours,

Robert B. Maddow

Robert B. Maddow

RBM/DP - rlr

Enclosure -- Comments on Mojave Pipeline Northward Expansion Project Draft EIR/EIS

cc: Michael Boyle, FERC Project Manager
William E. Bauer, Mojave Pipeline Company
Walter F. Anton, CCWD Acting General Manager

CONTRA COSTA WATER DISTRICT

March 23, 1995

Comments on Mojave Pipeline Northward Expansion Project Draft EIR/EIS

INTRODUCTION:

The following comments cover the Mojave Pipeline Northward Expansion Project Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS), Volume I (February 1995) covering the Mojave North Mainline, Antioch Segment and Tracy to Antioch Southern Pacific Railroad Alternative as they impact the Contra Costa Water District (CCWD). Most of the comments cover the environmental analysis of Mojave's preferred route alignment for the North Mainline Core Project as it impacts upon the Kellogg Creek watershed area in northeastern Alameda and Southeastern Contra Costa Counties and plans for the Los Vaqueros Project (LVP) and other CCWD facilities, watershed lands and plans. The comments are provided by page reference (underlined) in the sequential order of the Draft EIR/EIS. Recommended additional language is identified in **bold** lettering.

COMMENTS:

Volume I.

36-13 Page ES-8. Under the subject "Water Resources", the text should include a statement that **all water supply canals and aqueducts would be bored or bridged** (as stated on page 5-27, Public Water Supplies).

36-14 Pages ES-10 and -11. The conclusion that the proposed project "would be an environmentally acceptable action" with the recommended mitigation is highly questionable because of the lack of field survey work to document existing conditions within the Kellogg Creek watershed area. The assumption is not warranted that "any significant impact that is identified [in future required site specific surveys, studies or field investigations] would either be avoided or mitigated to a nonsignificant level". As stated in the comments covering pages 3-9 and -10, below, the Draft EIR/EIS contains a significant error in (1) relying on environmental information from the Los Vaqueros Project EIR/EIS for general watershed preservation purposes and (2) not requiring a separate Project alignment evaluation of biological, cultural, land use, soils and topographic conditions at least to the LVP utility relocation corridor and adopted easement. A map is attached showing the extent of unsurveyed Project pipeline right-of-way alignment within the LVP and Kellogg Creek watershed (approximately 4.6 miles).

36-15 Page 1-9. In the fourth bullet, please add **and concern over impacts on existing CCWD facilities and properties.** Review of both CCWD verbal comments at the Scoping Meeting (on May 10, 1994) and written Notice of Preparation (NOP) comments (dated May 19, 1994) will reveal the concerns documented covering Project impacts on the Los Vaqueros Project and CCWD's existing facilities, operations and properties. Copies of CCWD's previous documented concerns regarding this Project were entered into the record at the recent Public Meeting on the adequacy of this Draft EIR/EIS in Livermore, California on February 28, 1995.

36-16 Page 1-11. The second paragraph states "all of these issues and concerns [raised during public scoping and through written comments] are addressed in the appropriate sections of this EIR/EIS". This statement is questionable because of the lack of attention given to documenting

36-13 Comment accepted. We have added the statement to the Executive Summary.

36-14 We stand by our conclusion that the proposed project, with the recommended mitigation, would be an environmentally acceptable action. The draft EIR/EIS was based on all of the Los Vaqueros Reservoir Project documents provided by CCWD, and we provided for additional surveys and mitigation within the Kellogg Creek watershed. See response to comment 36-5.

36-15 Comment accepted. See the statement added to revised section 1.5.1.

36-16 See response to comment 36-1 regarding the Kellogg Creek watershed. Because the Contra Costa Canal and Mallard Slough pipeline would be crossed by boring underneath and CCWD would issue an encroachment permit, we do not believe any further specific analysis is required. See response to comment 36-3.

36-16 environmental conditions and evaluating Project impacts within the Kellogg Creek watershed. No specific analysis is provided on Project impacts on crossings of the Contra Costa Canal, either for the preferred project alignment or the Tracy to Antioch Southern Pacific Railroad (SPRR) Alternative Route or for Project relationship to the existing CCWD Mallard Slough Pipeline and its sensitivity near the Bay Point community and along Port Chicago Highway right-of-way.

36-17 Page 1-12. The last sentence indicates that Volume II maps show both sets of Milepost numbers. A review of Maps 13-15 (North Mainline route in Contra Costa County) does not indicate the designation of both customer group 1 and 2 Milepost numbers. It appears that the numbers given apply to customer group 1.

36-18 Page 1-14. Table 1.4-1 does not indicate that encroachment permits required from "various water districts" also are required under other situations other than crossings. Since an encroachment permit would be required for construction on CCWD owned lands for the Mallard Reservoir, it is recommended that **and paralleling** is added after "Crossing..." in the Action column of Table 1.4-1.

36-19 Page 2-19. Under Section 2.4.2, Construction Procedures for Road, Rail, Waterbody, and Wetland Crossings, second paragraph, item (2), please add **and municipal water supply** after "irrigation" to give a complete picture that the Project would cross both irrigation and municipal water supply canals.

36-20 Page 2-23. Under Section 2.4.6, Access Roads, third sentence refers to the upgrading of two access roads within the LVP and Kellogg Creek watershed. The property containing the southern access road is owned by CCWD while the property containing the northern access road is owned by a private party and is the subject of current litigation for acquisition for the LVP. A portion of the northern access road will become inundated by the Los Vaqueros reservoir. All road improvements should conform to CCWD encroachment permit requirements (surfacing, drainage, pavement disposal and permit termination in inundation areas) regardless of ownership in order to preserve water quality. For agency coordination and public use benefit, it is recommended that Mojave be required to obtain encroachment permits from CCWD for both access roads through an additional agency-recommended measure (ARM):

> **Mojave shall obtain encroachment permits from the Contra Costa Water District (CCWD) for both Access Roads within the Kellogg Creek watershed area in connection with the Los Vaqueros Project in order to preserve water quality in the reservoir.**

36-21 Page 3-3. In Table 3.0-1, Alternative Route Suggestions Received During Public Scoping, it is stated that CCWD's alternative route suggestions (new Vasco Road and direct Tracy to Antioch) are "addressed by modifications to the proposed pipeline route through the Kellogg Creek watershed" in addition to the Draft EIR/EIS recommended adoption of the Tracy to Antioch SPRR Alternative Route. The response identified in quotes, above, either is an error or is totally inadequate because CCWD clearly objected to any routing, including Mojave's proposed revised alignment utilizing CCWD's utility relocation easement, through the LVP or Kellogg Creek watershed at the Public Scoping Meeting [and on many other opportunities as documented by the correspondence entered into the public record on February 28, 1995 in Livermore]. CCWD's second recommendation to study the new (relocated) Vasco Road alignment was not addressed in the Draft EIR/EIS.

36-22 Page 3-4. Also in Table 3.0-1, Bold, Polisner, Maddow, Nelson & Judson, representing CCWD, is listed as recommending the relocated Vasco Road alternative alignment. The indicated response is that it is "addressed by modifications to the proposed pipeline route through the

36-17 The commentor is correct. The mileposts printed in the draft EIR/EIS map volume correspond to the facilities to serve Additional Customer Group 1. See revised section 1.5.3, which deletes reference to Additional Customer Group 2.

36-18 Comment accepted. The CCWD encroachment permit has been added to revised table 1.4-1.

36-19 Comment accepted. See revised section 2.4.2.

36-20 See response to comment 36-2.

36-21 Comment accepted. We have modified table 3.0-1 to better reflect our evaluation. CCWD's recommendation to study the new (relocated) Vasco Road alignment was not addressed in the draft EIR/EIS because we believe that our recommendation to avoid the Kellogg Creek watershed by adopting of the Tracy to Antioch Southern Pacific Railroad Alternative was a better solution.

36-22 See response to comment 36-2.

36-22 Kellogg Creek watershed". This, again, is completely in error because the purpose of recommending the relocated Vasco Road alternative was to direct the pipeline outside the watershed area. The recommendation was made in response to Mojave's revised alignment to use CCWD's utility relocation easement which was designed to accommodate only the existing utilities lines traversing the LVP or Kellogg Creek watershed.

36-23 Page 3-9. In Section 3.3.3, first paragraph, line 9, indicates "CCWD is buying 18,600 acres...". The current land acquisition estimated for the LVP watershed and environs is **18,316** acres. In

36-24 Lines 10 and 11, it is stated "the proposed route is within a corridor identified for relocating the existing utilities that will be affected by the reservoir." This statement implies that the entire Mojave alignment inside the watershed is also within a utility relocation corridor. Only 3.7 miles of the total approximately 8.3 miles of the proposed Mojave pipeline in the LVP watershed is shown within CCWD's utility relocation easement (see map attachment). The 2.0 miles of the Mojave pipeline alignment north of Vasco Road (and leading out of the watershed) is within the defined utility relocation corridor. However, the existing relocated utilities will reconnect to existing pipelines along Vasco Road and will not require easements within the corridor from that point northward (i.e., this particular corridor is intended to route utilities around a possible future second reservoir, known as the Kellogg reservoir site). The 4.6 miles of Mojave pipeline, including 2.6 miles at the south end and the 2.0 miles at the north end, would be an intrusion into CCWD's watershed having no site specific route analysis for resources and constraints (shown as "unsurveyed portions of Mojave pipeline" on the attached map).

36-25 Page 3-9 and -10. The Draft EIR/EIS is seriously flawed because information provided by CCWD on use of the proposed pipeline alignment was ignored. The first sentence of the last paragraph on page 3-9 states "the Los Vaqueros Project EIR/EIS addressed alternative corridors for relocating Vasco Road, the pipelines, and the electrical transmission lines..". While the LVP Stage 2 EIR/EIS summarized (page 2-14 through 2-17) the utility alignment alternatives, it is not the proper citation for the corridor studies. The **Draft EIR Vasco Road and Utility Relocation (February 1990)** is the correct authority for the corridor analyses [the Final EIR was certified in September 1990]. Both Vasco Road and Utility Relocation documents were supplied to FERC on May 24, 1994. A second incorrect citation (CCWD, 1993, p. 3-13) is given on page 3-10, line 8, which should be changed to **Final EIR Vasco Road and Utility Relocation Project (September 1990), p. 3-13**. Also, on line 9, replace "EIR/EIS" with the **Vasco Road and Utility Relocation Project Draft EIR** for proper citation to the corridor studies. The statement in line 10 is incorrect ("total 150-foot-wide right-of-way for each pipeline"). Please refer to page 2-17 in the Vasco Road and Utility Relocation Draft EIR (copy enclosed), second paragraph, which states as follows:

> "all three natural gas pipelines would be located within the same right-of-way, with 50 feet between each pipeline, where parallel installation and 50-foot spacing is practical. An additional 25 feet of right-of-way would be required on either side of the pipelines, resulting in a total right-of-way width of 150 feet."

Please remove "for each pipeline" at the end of the completed sentence on line 10 for correction.

36-26 The last sentence in the first paragraph on page 3-10 (comprising lines 10 through 12) is misleading and without field studies allows the Draft EIR/EIS to be challenged as insufficient. The sentence reads:

> "We believe that the corridor can accommodate an additional pipeline and that the use of this right-of-way by an additional pipeline is a legal, not an environmental, issue."

While the Vasco Road and Utility Relocation Draft EIR studied several utility relocation corridors (for the existing natural gas and petroleum pipelines and electrical transmission lines)

36-23 Comment accepted. See revised acreage in section 3.3.3.

36-24 See response to comment 36-2; and the revised description in section 3.3.3.

36-25 Both the Los Vaqueros Project EIR/EIS and the Vasco Road and Utility Relocation EIR were used in our analysis. We mistakenly identified the width of the utility relocation corridor as 150 feet for each pipeline. The text has been corrected to identify the corridor width as ranging from 150 to 210 feet, the latter occurring where two natural gas pipelines, two petroleum pipelines, and a fiber optic cable would all be relocated within the same corridor. See the revised corridor width in section 3.3.3 and additional citation in appendix E. For obvious reasons utilities are commonly routed along existing rights-of-way. In reviewing the Los Vaqueros Reservoir Project documents, we did not find a statement precluding all future utilities from the project area. If the spacing between pipelines and on either side of the pipelines were reduced, the Mojave pipeline could be constructed without the consequences predicted by CCWD. We believe further easement negotiations to enable Mojave to construct through this area to be a legal issue.

36-26 See response to comment 36-6.

36-26 ranging from 0.5 to 1.0 mile wide, one must understand that the topography in the Kellogg Creek watershed was a major factor (along with fewer environmental constraints) in the selection of the precise alignment for the actual natural gas relocation easement or right-of-way. In one particular one mile segment (approximately Mileposts 256.8 to 257.8 as delineated in Volume II, Map 13), there will be four pipelines installed (two 36 inch diameter P.G. & E natural gas lines and a 24 inch diameter Texaco petroleum line and a 16 inch diameter Unocal petroleum line) within a 135 to 140 foot wide easement on the top of a ridge with side slopes ranging from 30 to 65% and greater based on preliminary topographic profiles prepared by CCWD. Mojave is proposing to install its natural gas pipeline (up to 20 inches diameter) into this environment. Page 2-12, Section 2.3.1 indicates in the second paragraph that Mojave's normal required construction right-of-way is 65 to 75 feet wide with the need for greater width "on steep grades and in areas of excessive slope" [cut and fill construction on slopes is described on page 5-17 where it is noted that extra workspace is needed to store additional excavated spoils]. A cross section profile for construction on sloping terrain is shown on page 2-14 (Figure 2.3.1-2). Because of the probability that the relocated natural gas and petroleum lines will be installed prior to Mojave's construction (P.G. & E. will initiate construction in April 1995), Mojave would be faced with critical safety issues with heavy equipment grading in difficult topography compounded by the recently installed major utility lines with mitigation in place (revegetation and recontoured slopes). Where landslide prone soils exist along this alignment, the introduction of a second major installation could increase slope instability in close proximity to the future Los Vaqueros reservoir.

This scenario was provided to FERC, SLC and the EIR preparer as NOP/NOI input on May 19, 1994 (part of the Evaluation of the Mojave Pipeline Project Impact on CCWD information) but which did not result in appropriate field investigation or other analysis addressing the complexity of this issue within this one mile segment. CCWD conducted a field trip to the Kellogg Creek watershed for FERC, SLC and consultant staff on June 29, 1994; however, other priorities prevented the agency representatives and consultants from allowing CCWD to show (1) that this was the only practical route for the utility relocation easement within the studied corridor and (2) the extreme topographic conditions within that easement where Mojave hoped to construct its pipeline. CCWD provided the consultant with all available detailed topographic maps, sketches and cross section profiles of the particular easement segment to assist in the environmental analysis. The results of CCWD's coordination (providing information and opportunities for the Project review team to evaluate the specific environment in question) failed to produce an understanding of the serious environmental issues involved because the Draft EIR/EIS concludes that there are no environmental issues - that the only issues involved are legal. That conclusion is wrong. The Draft EIR/EIS is inadequate in its analysis of this aspect of the pipeline alignment. The preparer should be directed to revise the Draft EIR/EIS regarding this issue, and include the information contained in CCWD's 1990 EIR, as well as the more recent data CCWD provided.

36-27 Page 3-12. In the Tracy to Antioch Southern Pacific Railroad Alternative Route paragraph, please change "West Pittsburg" to **Bay Point** to reflect the recent name change of that community.

36-28 Page 4-68. Under the discussion of vernal pools (fourth paragraph), the Table 4.4-1 citation should be **Table 4.4.2.3-1**.

36-29 Page 4-96. Footnote c/ states that "the Biological Survey is available for review" at agency "locations listed in Appendix G." However, reference to Appendix G only reveals the full name of the organization with no indication of location.

36-30 Page 4-100. In the fourth paragraph (line 4), "18,600" should be changed to the revised figure **18,316**. In line 6, add **relocation** after "utility". This omission appears to indicate a

36-27 Comment accepted. See the name change in revised section 3.3.3.1.

36-28 Comment accepted. See the corrected citation in revised section 4.5.2.1.

36-29 Comment accepted. The correct reference is appendix E, which has been revised to include the biological survey report review locations.

36-30 Comment accepted. See revised number and amended language in section 4.7.1.1.

36-30 misunderstanding that CCWD's utility relocation corridor and resulting precisely defined utility relocation easement were selected for the relocation of the existing utility lines crossing the LVP and Kellogg Creek watershed - not for future utility transmission lines. The environmental reviews conducted by CCWD did not anticipate that other entities would be using the precise easement designed exclusively for the relocation of existing lines. In connection with this subject, it is noted that P.G. & E actually reduced the number of natural gas lines from three to two within the approximate 3.7 mile long relocation easement which facilitated an acceptable final design through the difficult terrain.

36-31 Page 4-108. In the second full paragraph (second bullet), it is stated that "the future recreational areas" [i.e., in lands surrounding the Los Vaqueros reservoir] "will be administered by the EBRPD, LARPD, and CCWD." Decisions on the administration of recreation within the actual LVP and Kellogg Creek watershed area have not been made. The Brushy Peak area has been acquired by the LARPD and that agency will obviously provide recreation opportunities at that site and area; however, final decisions on the Vasco Caves administration [which would be directed toward the preservation and study of cultural and biological resources rather than for recreation purposes, under its general definition] and other potential recreational facilities and areas within the watershed area have not been made at this time. CCWD is currently preparing a recreation plan for the watershed area and limited adjacent areas to the watershed currently owned by CCWD.

36-32 Page 4-109. The last paragraph identifies three sensitive landscapes crossed by the proposed route. The identification fails to include the Kellogg Creek watershed area which will provide general recreation opportunities, such as fishing, boating, hiking and possibly camping (note: as stated, above, a recreation plan is under preparation which will clearly define the range of recreational activities allowable in the watershed and its immediate CCWD owned environs) to a rapidly growing San Francisco Bay Area population. The Los Vaqueros Project is a fully approved and funded project that is under construction with completion scheduled in 1997 and should be considered as part of the environment. CCWD is committed to providing multiple benefits, including recreational opportunities for the San Francisco Bay Area general public, within the watershed. It is not unreasonable to expect that visual amenities, such as ridgelines, existing vegetation and wildlife, rock outcrops and cultural features are to be preserved for their specific purposes but also for public appreciation and edification as part of the overall outdoor experience in a unique environment. It is submitted that the Kellogg Creek watershed area is an important sensitive landscape that should be included in this section as one impacted by the Project.

36-33 Page 4-110. In Table 4.7.4-1, Sensitive Scenic Resources Along the Proposed Route, in line 7 under the "North Mainline" heading, add **rock outcrops and ridge lines** to the "Resource" column. Also add **recreation access roads, activity centers, trails and reservoir in the future Los Vaqueros recreational and educational areas** to the line 7 column "Critical Viewpoint".

36-34 Page 4-117. In Table 4.7.3-1, Recreation and Public Interest Areas Crossed By or Near the Proposed Route, in the fifth line item under the "North Mainline" heading, please examine and possibly delete the first sentence under the "Comments" column which states "proposed route is adjacent to east edge of grounds along RR ROW".

36-35 Pages 5-5 and -6. The last paragraph under the "Landslides" heading describes one of the conditions that could occur if the Mojave pipeline is constructed and operated within the limitations of the existing CCWD utility relocation easement. CCWD believes that mitigation applied to crossings [by the Mojave Project] of landslide prone areas would not "completely mitigate the potential for pipeline construction to increase the slope instability." CCWD agrees with the statement "that [Mojave pipeline] construction and operation could worsen this

36-31 Comment accepted. We have changed the statement in the text regarding administration of the recreation areas. In addition, we have recommended that Mojave adopt the Tracy to Antioch Railroad Alternative to also avoid Brushy Peak, Vasco Caves, Contra Loma Reservoir, Black Diamond Mines Regional Preserve, which is owned and operated by the EBRPD.

36-32 See response to comment 36-2.

36-33 Comment accepted. The requested additions have been made to table 4.7.4-1. Mojave's adoption of the Tracy to Antioch Southern Pacific Railroad Alternative would avoid the future Los Vaqueros recreational and educational areas.

36-34 The statement was misplaced due to an alignment error. See revised table 4.7.3-1.

36-35 See response to comment 36-2, 36-4 and 36-6.

36-35 condition, and the impact would remain significant after mitigation." If CCWD's information had been considered followed by a survey, study or field investigation resulting in the identification of slope instability, then it could have led to the general finding that mitigation would not be sufficient to remove the Project's significant impact. The statement on page 3-10 that the issue of introducing a fifth pipeline to the right-of-way [i.e., utility relocation easement] "is a legal, not an environmental, issue" could not have been made if such information were available. A number of potential landslide areas are, in fact, identified along Mojave's proposed alignment in the watershed from preliminary photo interpretation analyses (USGS, 1971-73). This "Landslide potential" is acknowledged on page 5-12, Table 5.1.2-1 for the entire pipeline segment through the Kellogg Creek watershed (line item 2) with the notation of "potentially difficult excavation".

36-36 Page 5-17. The discussion of "Steep Slopes" includes information on cut-and-fill construction for level working conditions and extra space for additional spoils excavation. The paragraph cites the problems of shallow soils, unstable soils, and soils with high to severe erosion hazard which when combined with safety and visual issues raised by CCWD presents a situation where avoidance is warranted (i.e., this is acknowledged in the FERC and SLC staff recommendation for the Tracy to Antioch Alternative Route deemed to be "environmentally superior" to the Mojave preferred alignment studied in this Draft EIR/EIS).

36-37 Page 5-27. In the Public Water Supplies section, please add the following CCWD requirements for crossing the Contra Costa Canal and other CCWD facilities (note: the Mojave preferred alignment would cross the Canal in two locations; i.e., at Milepost (MP) 277 and at approximately MP 1.1 on the Antioch Segment; the Tracy to Antioch SPRR Alternative Route will also cross the Canal [see attached map for location] but would eliminate the need for the Antioch Segment crossing):

1. **All crossings of the Contra Costa Canal and other CCWD pipelines shall be by boring. The Canal crossing shall begin and end outside the Canal right-of-way.**
2. **A minimum four (4) feet separation shall be maintained from the outside diameter of the boring to the bottom of the Canal lining.**
3. **All pipeline crossings of the Canal shall be contained within a 24 inch diameter casing.**
4. **Standpipe blowoff valves shall be installed adjacent to both sides of the Canal crossing to allow for the escape of potential leaking gases. In the alternative to this, shut-off valves will be installed adjacent to both sides of the Canal with access provisions (keys to locks) provided to CCWD to operate the valves in the event of emergency.**
5. **The Canal and other CCWD pipeline crossings, as well as adjacent or nearby CCWD facilities and properties shall be included within Emergency Response Plans.**
6. **Mojave shall coordinate with CCWD in the design of all crossings and other construction in the vicinity of existing CCWD facilities and properties and obtain an encroachment permit for such construction and operation. Mojave shall provide at least two weeks notice prior to construction.**

36-36 Comment noted; no response necessary. See response to comment 36-1.

36-37 See response to comment 36-3. We acknowledge that further site-specific mitigation measures may be required by the CCWD or other permitting agencies and attached to the necessary encroachment permits.

36-37 7. **Mojave shall coordinate with CCWD in the design of the crossing with the Old River Pipeline and shall provide at least two weeks notice prior to construction.**

It is important to understand that the Contra Costa Canal is the sole source of water for approximately 400,000 residents in central and eastern Contra Costa County, a number of major industries, commercial and other community serving activities.

Due to the nature of the environmental document, it may be more appropriate that a reference is provided that Mojave comply with all CCWD (and USBR in the case of the Contra Costa Canal) encroachment permit requirements which would include, but not be limited to, the above conditions. Reference may be made to the attached map for the crossing location of the Tracy to Antioch SPRR Alternative Route with CCWD's Old River Pipeline.

CCWD plans to install a 16-inch diameter treated water main in the Port Chicago Highway right-of-way to serve the Bay Point community. Construction is proposed to start in December 1995 with completion in September 1996. It is important that Mojave coordinate with CCWD in the design of the Mojave pipeline in the Port Chicago Highway right-of-way to insure adequate separation and protection for the water main during construction and from accidents during operation.

Page 5-28. Specific Mojave mitigation measures are identified in the second paragraph to be used to protect levees. On page 5-29, it is stated that Mojave would follow these levee protection measures to protect the levee around the Mallard Reservoir. Mallard Reservoir is owned and operated by the CCWD and is an integral part of its treated water system. It contains 3,070 acre-feet (af) of water storage. Project activities in the vicinity of Mallard Reservoir (i.e., the Project is proposed to parallel the north levee of Mallard Reservoir for approximately 2,800 feet) could weaken the support for the levee structure. CCWD's May 17, 1994 analysis provides further information on potential impacts if this levee were breached as a result of construction or an accident occurring as a result of the Project operation or from any other event. The following additional measures shall be included to protect the Mallard Reservoir levee:

1. **Maintain a minimum 60 feet separation of the pipeline installation from the toe of the Mallard Reservoir levee and CCWD groundwater wells. Additionally, pipeline shall not be installed within the Mallard Reservoir foundation zone of influence.**

2. **No fueling, hazardous material storage or deposition shall be permitted within 400 feet of Mallard Reservoir.**

3. **No stockpiling materials, soils, and waste on the CCWD perimeter access road north of the Mallard Reservoir levee without prior written approval**

4. **Mojave shall inform CCWD's Operations and Maintenance Department at least two weeks in advance of projected pipeline construction in the vicinity of any existing CCWD facility, including the Contra Costa Canal, Mallard Reservoir, Contra Loma Reservoir, Short-Cut Pipeline, Mallard Slough Pipeline and the raw water pipeline to Randall-Bold Treatment Plant.**

Due to the nature of the environmental document, it may be more appropriate that a reference is provided that Mojave comply with all CCWD encroachment permit requirements which would include, but not be limited to, the above conditions.

Since the California Division of Safety of Dams (DSOD) has authority over Mallard and Contra Loma Reservoirs, it is important that Mojave coordinate design and construction scheduling with DSOD.

36-38 Page 5-29. In the discussion of "Reservoirs", it is recommended that **and obtain an encroachment permit from the Contra Costa Water District (CCWD), comply with the special protection measures for Mallard Reservoir and coordinate design and construction with the California Division of Safety of Dams** is added at the end of the sentence ending on line 8.

36-39 Page 5-52. The lower diamond recommends that Mojave not begin construction until FERC and SLC have received comments from the FWS and DFG regarding the proposed action; completion of formal consultation under both the Federal and California Endangered Species Acts; and receipt of written notification from the Director of the Office of Pipeline Regulation that construction or mitigation may begin. As a matter of information, FWS and DFG will need to review the Project with respect to conservation easement agreements with CCWD in the LVP or Kellogg Creek watershed. On June 1, 1994, CCWD entered into an agreement to convey 7,241 acres in conservation easements for San Joaquin kit fox habitat to the DFG.

Page 5-54. In the first paragraph under "Requirements of the Federal and California Endangered Species Acts", it is stated that the Draft EIR/EIS preparer is reviewing Mojave's biological survey report and will prepare a Biological Assessment (BA) as required by the ESA. Although it is acknowledged on page 5-53, Table 5.6.2-1, that a special status species field survey is required for the Project alignment through the LVP or Kellogg Creek watershed, it is requested that CCWD is provided with copies of the BA and ensuing Biological Opinion when they are completed because of CCWD's ESA commitments.

36-40 Page 5-65. In the last paragraph covering the subject of vernal pools and, in particular, the Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp, CCWD acknowledges and supports the concept of avoidance as the preferred measure to protect this resource and the species supported within that habitat.

36-41 Page 5-92. The last paragraph describes most of CCWD's concerns over the extension of the Mojave Pipeline Project through the Kellogg Creek watershed. It might be added that CCWD has been concerned over safety issues as well (as pointed out in comments addressing pages 3-9 and -10, above and as documented on page 5-102, paragraph 2), including the safety of the construction project and personnel and the safety of CCWD's water supply from landslide and erosion issues from construction (if it should occur after the reservoir is filled or in the process of filling) or accident while in operation.

36-42 It appears that the MP's in line 2 should be changed to **MP 252.3 and MP 260.6** to more accurately reflect the 8.3 miles of the Project within the Kellogg Creek watershed as measured originally from the USGS topographic maps provided by Mojave (scale 1" equal to 2000') which are more detailed than the maps contained in Volume II. Lines 8 and 9 contain the incorrect citation discussed and corrected previously under comments for pages 3-9 and -10. Please make the appropriate correction to the **Vasco Road and Utility Relocation Project (CCWD, 1990)**. In lines 9 and 10, the Draft EIR/EIS preparer repeats the confusion over the corridor information as contained in the Vasco Road and Utility Relocation EIR and has not used the later CCWD analysis dated May 17, 1994 which carefully analyzed the Project alignment in relation to the natural gas relocation easement.

36-43 Page 5-93. On Table 5.7.1.3-1, "Areas of Potential Land Use Concern Along the Proposed Route", the issue for line 1 should include **easements** as documented in CCWD's May 17, 1994 Analysis. Easements may contain provisions for future development of wind farm facilities

36-38 Comment accepted. See requested language in revised section 5.3.3.2.

36-39 Comment noted; no response required. See response to comment 36-10.

36-40 Comment noted.

36-41 Comment noted; safety has been added to the list of CCWD's concerns in section 5.7.3.3.

36-42 Comment accepted. See revised section 5.7.1.3.

36-43 In most cases, the pipeline would not affect future wind farm easements. Mojave's adoption of the Tracy to Antioch Railroad Alternative would avoid the areas at issue listed in this table for the North Mainline.

36-44 Page 5-102. Under the subject "Los Vaqueros Reservoir, Brushy Peak Regional Park, and Vasco Caves Area", the first paragraph contains minor errors and assumptions, most which have been addressed previously. In line 1 , change "7.8-mile" to **8.3-mile** and in line 2 change "MP 252.7" to **MP 252.3**. On line 3, change "18,000" to **18,316**. On line 4, change "geologically" to **cultural resource** or **archeological.** On line 6, change "14,000" to **14,459** as an update to CCWD's land acquisition program. On lines 9 and 10, please delete the reference that "the EBRPD and LARPD would be permitted to develop and maintain recreational services" because such decisions have not been made.

In the second paragraph, line 3, it is not clearly understood why "the relocation of Vasco Road" is a CCWD concern unless the issue is a safe crossing by the Mojave pipeline under the relocated Vasco Road. In the third paragraph, second sentence, it is explained why the Project would not present significant impacts on future recreational activities at Los Vaqueros. CCWD's position is that because of severely restricted ridge topography, it would be necessary to lower the ridge to create a safe construction zone - even with the introduction of the fifth (Mojave) pipeline where four would already have been installed and where the ridge line would have been correspondingly altered. The fifth pipeline would produce dramatically significant land alteration impacts, because the ridge route was selected on the basis that it could only support the four pipelines (i.e., in fact, as noted earlier P.G. & E decided to relocate its three existing natural gas pipelines into two within the restrictions of the ridge easement). The impacts of the fifth pipeline could further stress the ridge environment both during construction and possibly later by increasing landslide and erosion potential which would produce negative scenic and aesthetic consequences as well as jeopardize water quality in the reservoir.

Under the title "Black Diamond Mines Regional Preserve and Contra Loma Regional Park", please verify whether the BOR owns Black Diamond Mines Regional Preserve as stated in line 4. In lines 9 and 10, it should be added that **Contra Loma reservoir provides both emergency storage and operational flexibility for the CCWD.** Recreational benefits are extremely important, as noted, but are ancillary to the water supply and reliability functions of the reservoir.

Page 5-117. Table 5.9.3-1, Sites Listed on the NRHP or Recommended as Eligible for Listing on the NRHP That Could Be Affected by the Proposed Project, on line 1 lists one site on the NRHP as part of the Los Vaqueros District. It is recommended that consideration be given to including sites **CA-CCO-417 and CA-CCO-454H** as eligible sites. Both sites are located very close to the utility relocation easement and the introduction of the Project could intensify or expand impacts to those sites.

36-45 Page 5-146. Under the subject, "State Route 4 Bypass Project/East County Corridor Program", line 6, it is recommended that "near Los Meganos" be deleted. This is not a currently known, or common, geographic location.

36-46 Page 5-147. Second full paragraph, lines 7-9, it is indicated that the Los Vaqueros Project utility relocations will occur "at about the same time as Mojave's proposed project". Given the fact that one utility is planning to undertake pipeline relocation in early April 1995 and the others are planning to commence in July 1995, simultaneous operations are not remotely feasible. This indicates that cumulative impacts of the two projects will not be avoided and that the Mojave impacts will be compounded by the presence of the other utility lines and the mitigation in place for their impacts (e.g., recontoured slopes and revegetation of native plants, etc.). In the last paragraph, lines 1 and 2, it is stated that the Los Vaqueros Project is "likely" to "be constructed a number of years after Mojave's proposed project". This would not appear to be the case because the Los Vaqueros Project dam construction is projected to start in July 1995 with completion by October 1997. On page 2-25, it is stated that Mojave construction is "scheduled"

36-44 The characterization on Line 4 is based on a field visit and conversations with EBRPD staff; no change is required. We disagree with your conclusion based on our belief that with proper engineering a fifth pipeline could be built. Although the intent of this section is to discuss recreation, we have added the requested statement to section 5.7.3.3. See response to comment 36-2.

36-45 Comment noted.

36-46 We have clarified the construction schedule in section 5.12.

36-47 for mid 1995; however, since the Mojave Project will need further clearances and permitting after the completion of the environmental process, it does not appear likely that the projected start schedule will be met. Given the fact that Mojave has requested a FERC rehearing of the November 18, 1994 Preliminary Determination in order to allow the Project five years for the initiation of service, it is possible that the Los Vaqueros Project will be completed prior to the Mojave Project completion.

Page 6-1. Last paragraph under the "Tracy to Antioch Southern Pacific Railroad Alternative Route", line 2, please consider substituting "Alameda" with **San Joaquin**.

Page 6-3. In the recommended adoption of the Tracy to Antioch Route, in line 3, add **San Joaquin** to the list of counties where realignment is warranted.

36-48 Page 7-4. In ARM 4, line 2, add **San Joaquin** with Alameda and Contra Costa Counties. A new ARM should be added requiring **Mojave to [shall] obtain encroachment permits from CCWD and USBR for crossings of the Contra Costa Canal, the raw water pipeline to Randall-Bold Treatment Plant in Oakley and the Old River Pipeline in Byron.** The conditions included in the granting of the permit are identified in the comments for page 5-27, above.

36-49 Page 7-20. MPM 16 (e) should be amended with the addition of **and surface water supplies (e.g., Mallard Reservoir, Contra Costa Canal and Contra Loma Reservoir)**. Note that CCWD has wells located along the perimeter of Mallard Reservoir subject to the 400 feet limitation for refueling and hazardous material storage.

36-50 Page 7-21. Please add **and the Contra Costa Canal** after "canals" in line 1.

36-51 Page 7-22. MPM 27 is stated to include mitigation for Project effects on Mallard Reservoir, yet the three measures provided apply only to Contra Loma Reservoir's water quality protection. It is recommended that the wording provided as comment on page 5-28, above, be added to include water quality protection measures for Mallard Reservoir, as repeated:

1. **Maintain a minimum 60 feet separation of the pipeline installation from the toe of the Mallard Reservoir levee and CCWD groundwater wells. Additionally, pipeline shall not be installed within the Mallard Reservoir foundation zone of influence.**

2. **No fueling, hazardous materials storage or deposition shall be permitted within 400 feet of Mallard Reservoir.**

3. **No stockpiling materials, soils, and waste allowed on the CCWD perimeter access road north of the Mallard Reservoir levee without prior written approval.**

4. **Mojave shall inform CCWD's Operations and Maintenance Department at least two weeks in advance of projected pipeline construction in the vicinity of any existing CCWD facility, including the Contra Costa Canal, Mallard Reservoir, Contra Loma Reservoir, Short-Cut Pipeline, Mallard Slough Pipeline and the raw water pipeline to Randall-Bold Treatment Plant.**

It should be understood that Mojave is also subject to encroachment permit requirements which would include, but not be limited to, the above mitigation measures as conditions to the permit.

36-47 Comment accepted. We have added San Joaquin County to revised section 6.1.

36-48 See response to comment 36-3.

36-49 The commentor refers to a Mojave-proposed mitigation measure. We are unable to make commitments for Mojave; however, we expect that further site-specific mitigation measures would be required by the CCWD or other permitting agencies and attached to the necessary encroachment permits.

36-50 See new MPM 107. Mojave would bore or bridge all water supply canals and aqueducts.

36-51 See response to comment 36-3.

36-52 Page 7-39. MPM 82 (h) is requested to be revised to include a second sentence: **Excess material will not be allowed on downhill slopes within the Kellogg Creek or Herdlyn watershed areas; such material will be removed to an accepted receiving site.**

DP

36-52 Again, the commentor refers to a Mojave-proposed mitigation measure and we are unable to make commitments for Mojave; however, we recommend that Mojave avoid the Kellogg Creek Watershed and Los Vaqueros Reservoir project area by adopting the Tracy to Antioch Southern Pacific Railroad Alternative and incorporating it into the proposed North Mainline route.

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March 24, 1995

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ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

VIA FEDERAL EXPRESS

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attn: Ms. Mary Griggs

Re: Mojave Pipeline Operating Company
Docket Nos. CP93-258-000, et al.
CA Clearinghouse No. 94032040

Please find enclosed an original and fourteen copies of Comments of Pacific Gas and Electric Company on Draft EIR/EIS in the above-referenced matter.

Please file stamp the extra copy and return it in the self-addressed stamped envelope.

Very truly yours,

Judi K. Mosley

Judi K. Mosley

JKM:mp
Enclosures

cc: Mr. Michael Boyle
FERC Environmental Project Manager
825 North Capitol Street, NE
Washington, DC 20426

Service List

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AND
CALIFORNIA STATE LANDS COMMISSION

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Mojave Pipeline Operating Co.) Docket Nos. CP93-258-000, ~~et al.~~
) CA Clearinghouse No. 94032040

COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY ON DRAFT EIR/EIS

Pacific Gas and Electric Company (PG&E) hereby files its written comments on the draft environmental impact report/ environmental impact statement (EIR/EIS) issued by the Federal Energy Regulatory Commission (FERC) and California State Lands Commission (SLC).

37-1 The draft EIR/EIS does not meet the legal requirements of the National Environmental Protection Act (NEPA) and the California Environmental Quality Act (CEQA), which require all reasonable alternatives to a project to be considered. 37-2 The draft EIR/EIS disregards PG&E as an alternative even though it would result in less environmental impacts on the grounds that PG&E "would not meet the project objectives of increased reliability of service or pipeline-to-pipeline competition." (Draft EIR/EIS, p. ES-3.) In coming to this conclusion, the draft EIR/EIS relies 37-3 upon unnecessarily restrictive project objectives and misconstrues data on natural gas curtailments in northern California. In addition, it overlooks the socioeconomic impacts of higher gas utility rates for non-Mojave gas customers.

37-1 Thank you for your comments. We disagree that the EIR/EIS is inadequate or that it fails to comply with NEPA and CEQA.

37-2 Section 1502.14 of the Council on Environmental Quality's (CEQ's) NEPA regulations requires an EIS to examine all reasonable alternatives to the proposal. The CEQ has stated that reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and use common sense. The emphasis here is on what is "reasonable." We identified and evaluated a full range of reasonable alternatives. To assist us in determining whether a possible alternative is reasonable or not we established evaluation criteria that are listed in section 3.0. In our analysis of PG&E as a system alternative to the Mojave proposal, we concluded that PG&E's estimated modifications to its existing system would result in less environmental impact; however, we still believe that PG&E's existing system fails to meet the evaluation criteria because it cannot meet the project objectives. In Central and Northern California, the project objective, as defined by Mojave (the project applicant), includes providing pipeline-to-pipeline competition to PG&E. On its face, consideration of the PG&E system alternative does not pass the CEQ's "common sense" test for reasonable alternatives, and it was not carried forward for further analysis.

37-3 The issue of utility rates is beyond the scope of this EIR/EIS process. For further consideration, these nonenvironmental issues should be brought before the FERC in its continued proceeding on the Mojave proposal.

I

BACKGROUND

PG&E is a combined gas and electric utility serving customers in central and northern California under the regulatory oversight of the California Public Utilities Commission (CPUC). Four interstate pipelines serve PG&E's service area, bringing supplies from the U.S. Southwest, the Rocky Mountains, and Canada. In addition, customers can purchase California gas from producers located in the central valley region.

In the past few years, several new pipeline projects have been constructed to serve California, which have dramatically increased the reliability of service and competition among providers. In 1989, there was 2130 MMcf/day of interstate pipeline capacity serving northern California, and service to noncore customers in PG&E's service area was curtailed due to supply shortages and capacity constraints; these curtailments reached a high of 29,251 MMcf in 1989. Today, with the construction of new pipeline projects, including the PGT-PG&E Pipeline Expansion Project from Canada, there is approximately 2600 MMcf/day of interstate pipeline capacity serving northern California, and no curtailments are forecasted for at least 15 years under average temperature conditions.

While California consumers have reaped the benefits of increased reliability and enhanced competition as a result of this additional pipeline capacity, Mojave's proposed expansion will benefit only a few select customers and will impose costs on

PG&E's remaining customers that will exceed the project's benefits. Mojave intends to serve PG&E's large-volume noncore customers without bearing the same costs and responsibilities as state-regulated California utilities. PG&E already has submitted information to the FERC showing that approximately $200 million of PG&E's fixed costs could be shifted to PG&E's remaining customers who will not receive service from a FERC-regulated pipeline.[1]

Mojave's proposed route traverses several sensitive environmental habitats for 92 special status plants and animals, such as the San Joaquin Kit Fox, the Desert Tortoise, and several species of wildflowers. The draft EIR/EIS identifies adverse impacts on geologic resources and air quality that will be significant even after mitigation measures are implemented. In view of the fact that PG&E can meet the needs of natural gas consumers with far less construction and environmental impact, the adverse environmental impacts associated with the construction of the proposed Mojave project are unnecessary.

II

THE DRAFT EIR/EIS DOES NOT MEET THE LEGAL REQUIREMENTS OF NEPA AND CEQA BECAUSE IT IGNORES PG&E AS A REASONABLE ALTERNATIVE.

Although PG&E provided information demonstrating that minor additions to its system constituted a reasonable alternative to the Mojave project,[2] the PG&E alternative was dismissed in the draft EIR/EIS without any analysis.

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[1] See Second Supplemental Report of Dr. Paul W. MacAvoy on Stranded Cost issues, submitted as Appendix 4 to PG&E's December 8, 1994, Response to Commission Directive for Further Information in FERC Docket Nos. CP93-258-000, et al.

> Although the improvements to these [existing utility] systems that would be required to serve the same market Mojave proposes to serve would require less construction and therefore result in less short-term impact, use of these existing systems would not meet the project objectives of increased reliability of service or pipeline-to-pipeline competition.[3]

By defining the objectives so narrowly, the draft EIR/EIS has effectively ruled out any alternative projects. This is not permissible.

37-4 **The Alternatives Requirement.** Under both federal and California law, one of the primary objectives of the environmental review process is to evaluate alternatives to proposed projects. Federal regulations under NEPA describe this requirement as the "heart" of the environmental impact statement, and require federal agencies to "rigorously explore and objectively evaluate all reasonable alternatives."[4] The agency must compare the effects of the proposal and the alternatives, "thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public."[5] "The existence

37-4 See response to comment 37-2.

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[2] See Appendix B to PG&E's May 19, 1994, Comments in response to the FERC's notice of intent to prepare a joint draft EIR/EIS, and Appendix 4 to PG&E's December 8, 1994, Response to Commission Directive for Further Information in Docket Nos. CP93-258-000, et al.

[3] Draft EIR/EIS, p. ES-3.

[4] 40 C.F.R. § 1502.14 (emphasis added).

[5] Id.

of a viable but unexamined alternative renders an environmental 37-4 impact statement inadequate."[6] Reasonable alternatives include those that are practical or feasible, rather than simply desirable from the standpoint of the applicant.[7]

In *Natural Resources Defense Council, Inc.* v. *Morton*, the court upheld an injunction against a federal agency's proposal to sell oil and gas leases, finding that the agency had failed to adequately consider alternative courses of action:

> While the consideration of pertinent alternatives requires a weighing of numerous matters, such as economics, ... it is the essence and thrust of NEPA that the pertinent [Environmental Impact] Statement serve to gather in one place a discussion of the relative environmental impact of alternatives.[8]

Likewise, state regulations under CEQA require that the EIR describe and evaluate all reasonable alternatives, focusing on those that would eliminate significant adverse environmental impacts or reduce them to insignificance, even if they would be more costly or would impede the project's objectives to some degree. The EIR must include sufficient information about each

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[6] *Citizens For A Better Henderson* v. *Hodel*, 768 F.2d 1051, 1057 (9th Cir. 1985), citing *Brooks* v. *Coleman*, 518 F.2d 17, 18 (9th Cir. 1975).

[7] Council on Environmental Quality, *Forty Questions*, 46 Fed. Reg. at 18027.

[8] 458 F.2d 827, 834 (1972); see also *Coalition for Canyon Preservation* v. *Bowers*, 632 F.2d 774, 783-84 (9th Cir. 1980), in which an EIS for a proposed highway construction project was held to be inadequate due to its failure to address a project alternative, and *Vande-Kamp* v. *Marsh*, 687 F.Supp. 495, 499 (N.D. Cal. 1988), in which an EIS for an expansion of air cargo handling facilities was held to be inadequate for failure to consider alternative of relocating the project.

37-4 alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.[9] This requirement was demonstrated in Kings County Farm Bureau v. City of Hanford, where the court held that an EIR for a cogeneration project was inadequate because it did not consider all reasonable alternatives, stating: "The EIR must contain facts and analysis, not just the bare conclusions of a public agency.[10]

Project Objectives. The draft EIR/EIS states that one of the project's purposes is to provide pipeline-to-pipeline competition for the existing utility service. By defining the purpose of the project so narrowly, the draft EIR/EIS precludes meaningful evaluation of whether, rather than construct a whole new gas transportation system, the existing system simply should be modified or (under a no-project alternative) left unchanged. This is precisely the type of evaluation of alternatives that NEPA and CEQA require.

Confining project objectives in a way that eliminates relevant, environmentally superior alternatives undermines NEPA's purpose to ensure that the agency considers "all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and

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[9] 14 Cal. Code Regs. § 15126(d); see also, Citizens of Goleta Valley v. Board of Supervisors, 52 Cal.3d 553, 565 (1990); Laurel Heights Improvement Ass'n v. Regents of the University of California, 47 Cal.3d 376, 400 (1988).

[10] 221 Cal.App.3d 692, 736 (1990), modified on other grounds, 222 Cal.App.3d 516A (1990).

37-4 the cost-benefit balance."[11] Accordingly, "an agency will not be permitted to narrow the objective of its action artificially and thereby circumvent the requirement that relevant alternatives be considered."[12] CEQA imposes the same constraints.[13]

The project objectives in the Mojave draft EIR/EIS are artificially narrow. As stated in Van Abbema v. Fornell, 807 F.2d 633, 638 (7th Cir. 1986): "The evaluation of alternatives mandated by NEPA is to be an evaluation of alternative means to accomplish the general goal of an action; it is not an evaluation of alternative means by which a particular applicant can reach his goals."[14] The overall goal of the Mojave project is to provide reliable, reasonably-priced gas transportation. Although Mojave may be one means of meeting these objectives, alternative means must be identified and studied as well.

The alternatives analysis in the draft EIR/EIS is deficient for a second reason. The agency cannot limit the range

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[11] All Indian Pueblo Council v. United States, 975 F.2d 1437, 1444 (10th Cir. 1992), quoting Calvert Cliffs' Coordinating Comm., Inc. v. United States Atomic Energy Comm'n, 449 F.2d 1109, 1114 (D.C. Cir. 1971).

[12] City of New York v. United States Dept. of Transportation, 715 F.2d 732, 743 (2nd Cir. 1983); see also, Coalition for Canyon Preservation, 632 F.2d at 783; Vande-Kamp v. Marsh, 687 F.Supp. at 497-99.

[13] See, e.g., San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, 27 Cal.App.4th 713, 738 (1994); Kings County Farm Bureau, 221 Cal.App.3d at 736; Citizens of Goleta Valley v. Board of Supervisors, 197 Cal.App.3d 1167, 1179-80 (1988).

[14] See also, Natural Resources Defense Fund v. Morton, 458 F.2d 827, 834 (D.C. Cir. 1972).

37-4 of alternatives studied to those that will meet every project objective. NEPA requires the agency to "consider such alternatives to the proposed action as may partially or completely meet the proposal's goal and it must evaluate their comparative merits."[15] Similarly, CEQA requires the agency to address environmentally superior alternatives, even if they might "impede to some degree the attainment of the project objectives."[16]

The requirement that the agency must study alternatives that partially meet the project objectives reflects the very purpose of NEPA and CEQA: to inform agencies and to allow them to balance the environmental impacts of the project against the project benefits. This allows agencies to evaluate whether meeting part of the goal with less environmental impact would be preferable to an alternative that fully meets the stated goals, but has a greater environmental impact. This is the very purpose of both statutes.

To reject PG&E as an alternative without study simply because it does not meet part of the objectives, even though it would result in less environmental impact, violates the requirements of NEPA and CEQA. PG&E is an alternative that must be evaluated to adequately inform agencies and the public about alternatives to proceeding with the Mojave project.

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[15] Natural Resources Defense Council, Inc. v. Callaway, 524 F.2d 79, 93 (2nd Cir. 1975) (emphasis added); City of New York, 715 F.2d at 742.

[16] 14 Cal. Code Regs. § 15126(d)(1).

III

PG&E IS A REASONABLE ALTERNATIVE TO THE MOJAVE PROJECT.

Pursuant to the requirements of NEPA and CEQA, expansion of the PG&E system be analyzed as an alternative to Mojave. While some customers may prefer FERC jurisdiction and may receive service from Mojave at terms they consider more favorable, the fact is that PG&E can provide service to all of its customers, including those targeted by Mojave, with no new backbone facilities until the year 2003. To serve the customers targeted by Mojave, only 30 miles of backbone transmission pipeline would be required between 2003 and 2010, and no additional compression would be needed.[17] These additions are minimal compared to Mojave's proposal to construct more than 600 miles of pipeline and around 90,000 horsepower of compression at four locations. There is no need for a major transmission capacity addition into northern and central California in the near future (i.e., until 2003). When additional capacity is needed, PG&E can provide it with the least amount of new construction,[18] which would avoid the environmental impacts associated with constructing a new pipeline system.

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[17] Appendix B to PG&E's May 19 filing showed the facilities that would be required over the next 15 years on PG&E's Line 300, which transports Southwest and Rocky Mountain gas. Although this was not the least-cost expansion alternative, it was selected because it allowed easy comparison with Mojave's proposed expansion, which would access Southwest gas. PG&E's December 8, 1994, update included an amended resource plan, which was submitted to the CPUC. This resource plan was not limited to capacity additions on Line 300, and represented the least-cost mix of backbone transmission and storage expansion needed for PG&E to maintain reliable, reasonably-priced gas service over the next 15 years. While either plan involves far fewer facilities and a lower cost than the proposed Mojave expansion, the December 1994 filing is the least-cost alternative and involves the fewest facilities.

37-5 In view of the feasibility of the PG&E alternative -- and the fact that it would result in far fewer environmental impacts -- the FERC and SLC must reconsider their rejection of PG&E as an alternative. Only by conducting a side-by-side comparison of the environmental impacts of proposed Mojave project and the minor facility additions that would be required on PG&E's system over the next 15 years, can the agencies and the public be informed of the environmental costs and benefits of allowing Mojave to construct its proposed pipeline.

IV

THE DATA USED TO EVALUATE RELIABILITY OF PG&E'S SYSTEM IS MISCONSTRUED.

37-6 Page 1-3 of the draft EIR/EIS cites natural gas curtailments that occurred in northern California during the period 1989 to 1993 and suggests that, despite the addition of pipeline capacity within California, curtailments remain "possible." It appears that the data used to evaluate the reliability benefits of Mojave is misconstrued.

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[18] Page 3-5 of the draft EIR/EIS notes that neither PG&E nor SoCalGas have submitted applications to upgrade or expand facilities to serve customers targeted by Mojave. It should be noted, however, that given the magnitude and timing of any new facilities, it is not clear when, or if, an application would be required.

37-5 We disagree. We believe the level of analysis of the PG&E system alternative in the EIR/EIS is adequate and that our finding that the PG&E system alternative is not a reasonable alternative is correct because it cannot meet the project objectives. See response to comment 37-2.

37-6 The commentor is correct that the EIR/EIS used statistics in the 1994 California Gas Report. As described in the report, the forecast is subject to many uncertainties, but represents PG&E's best estimate for the future based on the most current information available. The report is prepared annually for long-term planning purposes. All of the utilities supply the same type of information and all provide cold temperature year forecasts. The probability of this temperature occurring is about 2.5% annually.

37-6 On November 1, 1993, PG&E added new facilities (Line 401), which increase its firm intrastate capacity by more than 800 MMcf/d, more than half of which is expected to serve northern California.[19] Since this new line was installed, there have been no curtailments. Moreover, with no further additions to PG&E's mainline transmission system, no curtailments are forecast until 2003 under average temperature year conditions. From the year 2003 through 2010, PG&E forecasts that it can meet the needs of all its customers, with no curtailments under average year temperature conditions, and only minor facility additions -- a fraction of those proposed by Mojave.[20]

How Cold is Cold? The draft EIR/EIS recognizes that "no source curtailments are forecast for average-temperature years," but notes that "system curtailments from 317 to 8,292 MMcf [yearly totals] are forecast to occur between 1995 and 2000 assuming the unlikely but possible colder-than-normal weather planning scenario."[21] It is important to understand that the "colder-than-normal weather planning scenario" has only a 2.5

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[19] About 350 MMcf/d of the capacity of the PG&E Pipeline Expansion Project is under firm contracts to users in southern California.

[20] PG&E identified the capacity additions that would be required in Appendix B of its May 19, 1994, Comments to the FERC and in its Second Supplemental Report of Dr. Paul W. MacAvoy on Stranded Costs Issues, submitted as Appendix 4 to PG&E's December 8, 1994, Response to Commission Directive for Further Information in Docket Nos. CP93-258-000, et al.

[21] Draft EIR/EIS, p. 1-3.

37-6 percent probability of occurring -- and a 97.5 percent probability of not occurring.[22] Moreover, even in the unlikely event that curtailments of this magnitude are necessary, they would only affect customers who choose a less reliable level of service in order to obtain price advantages. While PG&E is obligated to give priority service to core customers, the likelihood of curtailments has been and will continue to be extremely low, and will be limited to customers choosing less reliable service.

The CEC Fuels Report. The reference on page 1-3 of the draft EIR/EIS to the California Energy Commission's (CEC) belief that curtailments remain "possible" is taken out of context. The CEC's 1994 Fuels Report finds that curtailments would be rare, brief, and would not affect high priority customers:

> [S]hort-term problems are possible ... (typically due to extremely cold weather).... In such circumstances low-priority, interruptible customers (which have the ability to switch from gas to oil) may have their gas service curtailed. These curtailments usually last only a few hours to a few days, until the weather moderates and gas demand drops back down to normal levels. Home heating and other high-priority gas uses are never curtailed due to peak demand conditions."[23]

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[22] The forecasted system curtailments on page 1-3 of the draft EIR/EIS, which appear to have been taken from the 1994 California Gas Report, represent the possible curtailments under a discrete statistical event, specifically, a temperature condition which is two standard deviations below the average temperature. The probability of this temperature condition occurring, which would lead to curtailments of the magnitudes listed, is about 2.5%.

[23] Id. at 50 (emphasis added).

PG&E acknowledges that curtailments are possible. Due to the uncertainty and variability of the highly temperature-sensitive core demand, constructing a system that could meet 100 percent of the demands 100 percent of the time would require a great deal of excess capacity. Curtailments are infrequent and affect only low priority customers, and it would not be an efficient use of resources to construct a new pipeline system to effectuate such a minimal improvement on reliability.[24]

V

COMPETITION BETWEEN PG&E AND MOJAVE WILL NOT BE ON AN EQUAL BASIS.

The draft EIR/EIS cites "pipeline-to-pipeline competition" as an objective of the Mojave project. While this may be an objective of Mojave's, it is not appropriate for the FERC and SLC to adopt this as an objective for purposes of determining whether PG&E is a reasonable alternative.

37-7 The phrase "pipeline-to-pipeline" competition implies that the competing entities are the same types of entities and can compete on an equal basis. This is not true. The alleged benefits of pipeline-to-pipeline competition are speculative at best and have been refuted by PG&E in previous filings.

Gains from competition are realized only when both entrant and incumbent are subject to the same rate requirements and service obligations. "Competition" does not occur when one

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[24] PG&E has determined that its system is used most efficiently, and results in the overall lowest-priced gas service to all its customers, when the probability of curtailments to non-core customers is no greater than once every five years.

37-7 The issue of appropriate project objectives is beyond the scope of the EIR/EIS. For further consideration, these nonenvironmental issues should be brought before the FERC in its continued proceeding on the Mojave proposal. The FERC, in its November 18, 1994, Preliminary Determination on Nonenvironmental Issues, determined that there is a need for this project.

37-7 company is required to provide service to all comers, while another firm is free to enter only those markets it chooses to serve. Instead of producing the desirable competitive outcome, this condition is more likely to generate uneconomic bypass that raises the total costs of providing service. As Dr. MacAvoy explained in his presentation before the FERC on December 16, 1993:

> If FERC certifies the Mojave extension, there will be a contest for high margin industrial customers but it will be limited by State commission rate controls that inhibit PG&E's response. There will be no pipeline-to-pipeline competition for residential and small customers because the incumbent's margins on sales to these customers are too low to be attractive to the entrant. This is not competition.[25]

VI

37-8

THE DRAFT EIR/EIS OVERLOOKS THE SOCIOECONOMIC IMPACTS OF HIGHER GAS UTILITY RATES.

Not only does the draft EIR/EIS ignore the fact that competition between PG&E and Mojave would not be on an equal basis, it also ignores Mojave's socioeconomic impacts on PG&E's other customers -- namely, higher rates. As noted above, PG&E has submitted information to the FERC showing that about $200 million of PG&E's fixed costs could be shifted to PG&E's remaining customers if Mojave succeeds in taking a portion of PG&E's customer base that would otherwise bear their fair share

37-8 See response to comment 37-3.

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[25] See transcript of Dec. 16, 1993, public conference at pages 34-35.

37-8 of these fixed costs.[26] The draft EIR/EIS (pages 5-110 to 5-111) notes the positive economic impacts on business, employment rates, and tax revenues, but completely disregards the negative economic impacts of higher gas rates for millions of California consumers -- including the possibility that higher utility rates could lead businesses to relocate outside California, which could result in negative economic impacts on business, employment, and tax revenues.

As PG&E has previously informed the FERC, if the "market" is allowed to determine whether the Mojave project will be built, the FERC must take steps to ensure that Mojave's rates correctly signal economic costs. This would be accomplished by requiring Mojave to compensate PG&E for the lost contribution to margin resulting from Mojave's proposal and excusing a portion of the reservation charges paid by PG&E to Mojave's parent, El Paso Natural Gas Company.[27] Such conditions would ensure that both PG&E and Mojave would compete on the basis of their respective costs -- not regulatory differences.

---

[26] There is a possibility that the CPUC could prevent PG&E from shifting these costs to ratepayers, forcing PG&E's shareholders to bear these costs. While PG&E believes that such a result would be extremely inequitable, it would not eliminate the socioeconomic impact of Mojave's duplicative pipeline; rather, it would simply change the group that would suffer the economic impact.

[27] See Second Supplemental Report of Dr. Paul W. MacAvoy on Stranded Cost Issues, attached as Appendix 4 to PG&E's December 8, 1994, filing in FERC Docket Nos. CP93-258-000, et al.

VII

CONCLUSION

For the reasons stated above, PG&E respectfully requests the FERC and SLC to reconsider their decision to disregard PG&E as a reasonable alternative to the proposed Mojave project, and to address the socioeconomic impacts that would result from Mojave's bypass proposal.

Respectfully submitted,

PATRICK G. GOLDEN
JUDI K. MOSLEY

By Judi K. Mosley
JUDI K. MOSLEY

Law Department
PACIFIC GAS AND ELECTRIC CO.
77 Beale Street, Room 3017
San Francisco, CA 94106
(415) 973-6611

March 24, 1995

ALAMEDA COUNTY PLANNING DEPARTMENT

· Development Planning · Housing & Community Development · Policy Planning & Research · Lead Poisoning Prevention · Zoning Administration & Enforcement

399 Elmhurst Street, Hayward, CA 94544 (510) 670-5400 FAX (510) 785-8793

March 24, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street NE
Washington, DC 20426

SUBJECT: Mojave Northward Expansion Project Draft EIR
Docket Nos. CP93-258-000, et al., SCH 94032040

To Whom It May Concern:

Thank you for the opportunity to review the Environmental Impact Report for the proposed Mojave Northward Expansion Project, a portion of which would be located in Alameda County. The Draft EIR presents an extensive analysis of potential impacts with proposed mitigation measures. After reviewing the document, we have the following comments:

38-1 Land Use: To ensure that the project does not conflict with policies in the *Alameda County General Plan* regarding the preservation of agriculture and residential use in the South Livermore Valley, we recommend that the pipeline be located along public rights of way (roads or railroads) in eastern Alameda County.

38-2 Transportation: If the chosen location for the pipeline is along the railroad or road right-of-way through the unincorporated portions of Livermore and Pleasanton, it will be necessary to obtain approval from Alameda County. The County will want to ensure that the pipeline will not conflict with future uses the County may make of the rights-of-way.

38-3 Water Quality: The Draft EIR does not address the impacts and proposed mitigation measures for applying herbicides to keep the right of way clear of vegetation. Please discuss potential impacts to surface and groundwater quality due to application of herbicides and measures you propose to minimize these impacts.

38-4 Cultural Resources: The proposed pipeline may pass through or near Vasco Caves in northern Alameda County. We recommend that you alter this route, if necessary, to avoid this area in order to preserve some of the County's critical cultural resources.

38-1 Thank you for your comments. In response to public comments, a new minor route variation, the Livermore/Roadway, was developed and analyzed and we are recommending its adoption. The new variation is described in section 3.4 and our conclusions presented in section 6.4.

38-2 We will pass this request along to Mojave. Because Mojave has dropped the Oakland segment from the project, the Livermore/Railroad variation and the Livermore-Oakland Railroad Right-of-way Westward Alternative Routes are no longer viable and have been eliminated.

38-3 Mojave's proposed use of herbicides for vegetative maintenance is restricted to within their chain-link-fenced areas such as at compressor and meter stations and valve sites. The herbicide type used by Mojave is both EPA- and FWS-approved; therefore, we do not expect that either surfacewater or groundwater quality would be affected by the use of herbicides. See revised section 2.5 for further information on vegetative maintenance.

38-4 As proposed, Mojave's project would not affect cultural resources in the Vasco Caves area; however, we recommend the adoption of the Tracy to Antioch Railroad Alternative in lieu of the proposed route of the North Mainline through this part of northern Alameda County which would also avoid indirect effects on Vasco Caves.

38-5 Biological Resources: The Draft EIR recommends several mitigation measures for endangered, threatened and candidate species, such as the California tiger salamander. The recommended mitigation measure to protect California tiger salamander habitat is to make minor route realignments or narrow rights-of-way, where feasible, and, *if not feasible,* capture and relocate the tiger salamander. We recommend that the project be coordinated with the California Department of Fish and Game and the Cities of Pleasanton and Livermore to ensure that the route does not adversely affect habitat of any endangered species, including candidate species. Specifically, the route appears to pass through California tiger salamander preservation ponds south of Livermore near Route 84 and these ponds must be avoided.

Sincerely yours,

James Sorensen
Assistant Planning Director

cc: Mr. Michael Boyle, Federal Energy Regulatory Commission, 825 North Capitol Street NE, Room 7312, Washington, DC 20426
Ms. Mary Griggs, California State Lands Commission, 1807 13th St., Sacramento, CA 95814

38-5 This issue is adequately addressed in section 7.5.1.2 and in ARMs 35, 39, and 40.

CITY OF MOUNTAIN VIEW

Planning and Community Development Department
500 Castro Street • Post Office Box 7540 • Mountain View, CA 94039-7540 • 415 903-6306 • FAX 415 903-6499

March 27, 1995

RECEIVED BY

MAR 2 8 1995

ENVIRONMENTAL COMPLIANCE AND
PROJECT ANALYSIS BRANCH

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capital Street, NE
Washington, DC 20426
Attention: Mr. Michael Boyle, Project Manager
RE: Docket Nos. CP93-258-000

The following letter is in response to the Environmental Impact Report/Environmental Impact Statement for Mojave Pipeline Operating Company's Northward Expansion Project.

Scenic and Recreation Areas

39-1 In section 4.7.3, Recreation and Public Interest Areas, it states that the proposed pipeline route crosses several areas proposed for designation. In the City of Mountain View, 0.1 mile of the Stevens Creek Park Chain, a hiking/biking trail which will parallel Stevens Creek on its seven-mile course through Mountain View, would be crossed along the railroad right-of-way at milepost 41.5. This is a phased project with the first reach completed, the second reach under construction, and the final three reaches in design and engineering. The designation of this area needs to be clarified as to whom and why this land is to be designated. The pipeline should be designed to avoid conflict with this area.

39-2 Mojave has stated that the buried pipeline would not interfere with the proposed surface trail, but Mojave's standard easement agreement prohibits any permanent structures, paved roads, or elevation changes to the surface area of the easement. Mojave would consider special easement conditions to permit a paved bikeway trail. An easement agreement allowing this bikeway should be reached prior to approval.

39-3 Table 4.7.3-1 states at milepost 43.0, the railroad right-of-way separates Rengstorff Park from the proposed route for 0.2 miles. Rengstorff Park abuts the railroad right-of-way, but does not cross it. The proposed route should not intersect this park, and should be designed to avoid conflict with this area.

39-4 The proposed route is adjacent to, and crosses the proposed Juan Bautista de Anza National Historic Trail, through Mountain View. This is a continuous recreation trail, extending from Arizona to San Francisco. The affects of this are not addressed.

Recycled Paper

39-1 Thank you for your comments. The term "designation" merely refers to these recreational facilities becoming recreational trail systems upon construction. The words "for designation" are replaced by "for construction" in section 4.7.3.

39-2 See response to comment 22-4.

39-3 The proposed pipeline would not intersect Rengstorff Park.

39-4 General impact and mitigation regarding recreational trails are covered in sections 5.7.3.2 and 7.5.2.2 and in MPM 72.

39-5 The proposed pipeline is planned in the same right-of-way as the planned Tasman Light Rail Line, the northern expansion of the existing Guadelupe Corridor Light Rail System in San Jose. Mojave should consult with Mountain View during its detailed engineering design phase to avoid adverse impacts and conflicts with these development plans.

Visual Resources

39-6 There are locations along the railroad right-of-way where underground construction would significantly affect existing trees and other planted material. The agency-recommended measure (ARM) 41, states that for all residents within 50 feet of the construction work area, Mojave will not remove mature trees or specialized landscaping within the construction work area unless necessary for the safe operation of construction equipment. Mojave should provide a definition of "mature trees." A provision should be made that all trees which are removed, should be replaced with one or more trees of an appropriate nature.

Miscellaneous

39-7 In Mountain View, there are approximately 250 residences within 50 feet of the construction right-or-way. Property owners should be notified, in writing, of the construction schedule. Mitigation measure proposed by Mojave, (MPM) 66, states that Mojave will limit the hours of construction to times of low noise sensitivity. This should be clarified to limit the hours of construction from 7:00 am to 6:00 pm, Monday through Friday.

39-8 Table 4.3.1-1, shows the Santa Clara Valley groundwater basin to be between 6-10 feet. This may provide water quality issues affecting the permit requirements for the disposal of water removed during trench dewatering. All applicable permit requirements shall be met for proper disposal.

39-9 On Map 30, showing the Palo Alto Segment, a "Gaging Station" is shown on the base map, at approximately milepost 41.3. There is no reference to a gaging station in the EIR/EIS. This use needs to be defined.

39-10 City design review may be required for any above-ground facility. To allow for a review, the location, function and appearance of all above ground facilities should be defined and designated on a map.

If you have any questions, please call me at (415) 903-6306.

Sincerely,

Randal Tsuda, Zoning Administrator

39-5 We will pass this requirement along to Mojave.

39-6 Mitigation for removal of trees that act as visual barriers along the Peninsula Corridor Joint Powers Board railroad right-of-way is adequately addressed in section 5.7.4.2 and in MPM 82.

39-7 We will pass this information along to Mojave. See section 5.7.1.2

39-8 Compliance with discharge requirements for contaminated groundwater is adequately addressed in section 5.11.4.

39-9 The gaging station is identified on the U.S. Geological Survey (USGS) base map used to prepare the maps in Volume II and is not part of the proposed project.

39-10 We will pass this request along to Mojave.

ELLMAN, BURKE, HOFFMAN & JOHNSON
A PROFESSIONAL CORPORATION
ONE ECKER BUILDING, SUITE 200
SAN FRANCISCO, CALIFORNIA 94105
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TELEPHONE (415) 777-2727

March 27, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

California State Lands Commission
1807 - 13th Street
Sacramento, California 95814
Attn: Ms. Mary Griggs

Re: Mojave Pipeline Northward Expansion Project; Draft Environmental Impact Report / Environmental Impact Statement; Comments of Orchard Livermore Associates

Ladies and Gentlemen:

We represent Orchard Livermore Associates, Ltd., a California limited partnership ("Orchard"), which is the owner of two large parcels of land in the City of Livermore, near or through which portions of the proposed pipeline would be placed, either as a part of a preferred route or an alternate route. This letter sets forth the comments of our client on the "Draft Environmental Impact Report / Environmental Impact Statement" (the "Draft").

The first of the parcels owned by Orchard is located in the southwest quadrant of the interchange of Greenville Road and Interstate 580 and is known as the "Orchard Greenville Business Park" (the "Greenville Business Park"). That site is presently used for industrial and retail purposes, with a factory outlet center as the current retail use.

40-1 Although it is difficult to ascertain from the Draft the exact location of the proposed route through or near the Greenville Business Park, it appears that the location would be in close proximity to the retail and industrial uses, in an area which the Draft indicates is a part of the "Greenville Fault Zone". That Zone is characterized in the Draft as having "Historic displacement, 1980 rupture, multiple fault strands; APSS zone..." and as being crossed twice by the proposed route. We are concerned that a high-pressure pipeline crossing fault lines is not compatible with a retail site which will be heavily populated.

In that regard, and as a separate comment, one of the mitigation measures for points at which the pipeline crosses fault zones is to place the pipe in a shallow trench, while a mitigation for locations where the pipeline is to be located in densely populated areas is to place the pipe in a deep trench. We believe those mitigation measures may prove to be inconsistent, and thus inapplicable, in the area of the Greenville Business Park.

The second property owned by Orchard is located in the

40-1 Thank you for your letter. We have recommended the adoption of the Tracy to Antioch Railroad Alternative in lieu of a portion of the North Mainline. This alternative would avoid crossing the Greenville Fault Zone in the vicinity of the Greenville Business Park.

40-2 vicinity of the Livermore Airport and would appear to be affected by an alternative route proposed by the Planning Department of the City of Livermore. The location of the proposed extension of the Isabella roadway (in which the pipeline is recommended in that alternative to be placed) has not yet been established by the City and other agencies, and further study of that proposed alternative should be undertaken at the time that such location has been established.

40-3 We also note that the "DOT Minimum Federal Safety Standards" referred to in the Draft appear to evaluate safety issues in terms of number of structures, not in terms of the intensity of the use of those structures by people. We believe that a methodology taking into consideration the intensity of use by humans of any structures possibly affected by a pipeline failure would be required to permit a fair evaluation of the risks to people posed by the project.

40-4 Lastly, it appears that the conclusory statements contained in Section 5.13 concerning the growth inducing impacts of the pipeline are inadequate, since they do not take into account whether or not growth would be constrained, in the absence of the proposed pipeline, by inadequate supplies of natural gas. If such a constraint to growth presently exists, it would appear that the proposed pipeline could have growth inducing impacts, the significance of which would need to be deter-

40-2 Mojave has dropped the Oakland Segment from the proposed project; consequently, the Livermore Railroad minor route variation described in section 3.4 is no longer viable, and there would be no impact on property in the vicinity of the Livermore Airport.

40-3 As discussed in section 5.11.1, the proposed facilities would be designed, constructed, operated, and maintained in accordance with the DOT Minimum Safety Standards in Title 49, CFR, Part 192, which are intended to ensure adequate protection for the public from natural gas facility failures. The DOT class location units described in section 5.11.1 are based on the number of structures and intensity of use. See response to comment 2-17.

40-4 As discussed in section 1.1, the purpose of the proposed project is to provide natural gas transportation primarily to industrial and electric generation customers that are already existing or under construction. Although gas prices may be an economic issue, there is no evidence that growth is being constrained by inadequate supplies of natural gas.

mined by further analysis in the Draft. While Orchard certainly does not oppose growth per se, it does appear that the Draft would be inadequate in the absence of such further analysis.

We appreciate your consideration of these comments and look forward to receiving your responses.

Very truly yours,

Jay L. Paxton

JLP/vvh
Enclosures

cc: Mr. David J. Brown
Mr. Daniel M. Sarhad

EAST BAY
MUNICIPAL UTILITY DISTRICT

JOHN B. LAMPE
DIRECTOR OF WATER PLANNING

March 27, 1995

SENT VIA FAX

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attn: Ms. Mary Griggs

SUBJECT: Draft EIR/EIS for the Mohave Pipeline Northward Expansion Project - Document No. CP93-258-000, et al./State Clearinghouse No. 94032040

Dear Sir/Madam:

41-1 Thank you for the opportunity to allow the East bay Municipal Utility District ("District") the opportunity to review the subject project. The proposed pipeline route crosses the District's water transmission facilities in the San Joaquin Valley and Delta Regions. The proposed Oakland pipeline segment also crosses local water distribution facilities in the Castro Valley/Oakland areas. Because of this, the District requires that the following comments be included in the Final EIR/EIS as mitigation measures:

41-2 1. The District recommends that all pipeline routes adhere to existing railroad, powerline, or Freeway rights-of-way. The use of the District's Mokelumne Aqueduct right-of-way should be avoided because the Aqueducts are the District's only raw water transmission lines and damage to these lines can pose a serious threat to the potable water service for the 1.2 million people in the District's service area. However, if it is determined that acquisition of rights to cross the District's fee-owned right-of-way is necessary for the pipeline project, then the District shall be compensated for any rights obtained (permanent and temporary for construction) as per the Municipal Utility District (MUD) Act. Longitudinal encroachments present a significant impact on the District's ability to maintain, operate, and repair its existing aqueducts and construct new facilities as needed, and are therefore not allowed. However, perpendicular crossings are allowed with special measures to protect the aqueducts.

41-3 2. The District recommends that the developer of the Mohave pipeline coordinate the design plans and specifications with the District's Water Operations and Engineering Department's prior to approval of the plans, and that the District be allowed sufficient time to review the plans in their entirety.

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 287-1127 . FAX (510) 287-1275
P.O. BOX 24055 . OAKLAND . CA 94623-1055

BOARD OF DIRECTORS ANDREW COHEN . JOHN A. COLEMAN . STUART FLASHMAN
JOHN M. GIOIA . KATHERINE McKENNEY . NANCY J. NADEL . KENNETH H. SIMMONS

41-1 Thank you for your letter. The Oakland Segment has been dropped from the project, which will eliminate crossing local water distribution facilities in the Castro Valley and Oakland areas.

41-2 We will pass this request along to Mojave. It is certainly not our intention to minimize the importance of the East Bay Municipal Utility District's (EBMUD's) existing water supply system; however, the crossing of existing utility lines is a normal part of pipeline construction. As stated in sections 2.4.2 and 5.3.3.2, Mojave would bore or bridge all water supply canals, aqueducts, and lined irrigation canals. See new section 2.4.3 for a description of the utility crossing construction procedures. Further site-specific mitigation measures may be required by EBMUD or other permitting agencies and attached to the necessary encroachment permits. No longitudinal encroachments are proposed.

41-3 Mojave would coordinate the design and specifications with EBMUD to enable sufficient time to review plans as described in new section 2.4.3 See response to comment 36-3.

41-3 3. Special design features as indicated in the District's review shall be included in the pipeline construction near the District's existing aqueduct and distribution pipelines.

Attached to this response is an earlier District letter with additional comments relating to water distribution pipelines. If you have any questions, please contact Russell E. Bowen, Manager of Water Production, at (510) 287-0896.

Very truly yours,

W.R. for

John B. Lampe
Director of Water Planning

JBL:MAJ:jj
W:\wdpd\maj\mohave.eir

Attachment

EAST BAY
MUNICIPAL UTILITY DISTRICT
ENGINEERING AND CONSTRUCTION DEPARTMENT

DENNIS M. DIEMER
DIRECTOR OF ENGINEERING

RECEIVED
JUL 12 1993
ENGINEERING & LAND

July 7, 1993

Mr. Jim Dolan
Right-of-Way Agent
Mojave Pipeline Operating Company
P O Box 10269
Bakersfield, CA 93389-0269

SUBJECT: Proposed Natural Gas Transmission Pipeline

Dear Mr. Dolan:

Thank you for your letter of May 21, 1993 and the route map showing the proposed location of the pipeline.

We wish to correct your first paragraph which said that a segment of your system will be designed to traverse property within the jurisdiction of the East Bay Municipal Utility District. The public right-of-way and/or streets within a city are under the jurisdiction of that city. EBMUD is a water utility company and provides water services to the people of that city. Being a municipal corporation we have the same rights as the city to install sub-surface utilities in the public right-of-way and/or streets.

We do not issue permits to your company for the installation of your pipeline in the public right-of-ways except when your pipeline crosses our right-of-ways scattered throughout our service boundary. These rights-of-way are normally obtained from private properties and/or the cities where the streets are vacated and then reserved for utility companies for the purpose of maintaining our distribution system and/or providing water services.

Our main concern is that you and/or your consultants coordinate the design of your proposed pipeline with our office. This will involve coordinating with us throughout the design stage so that we can furnish you information of our existing and proposed facilities; review your design and provide engineering requirements and/or recommendations; and determine any conflicts between our facilities and your proposed work so that such conflicts can be resolved at the earliest date possible.

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 835-3000
P.O. BOX 24055 . OAKLAND . CA 94623-1055

BOARD OF DIRECTORS KATHERINE McKENNEY . STUART FLASHMAN . ANDREW COHEN
JOHN A. COLEMAN . JOHN M. GIOIA . NANCY J. NADEL . KENNETH H. SIMMONS

There will be costs incurred by EBMUD to furnish information, review, study and provide recommendations to resolve conflicts; and prepare relocation plans and estimates for relocation of EBMUD facilities impacted by your proposed pipeline project. These costs are your company's obligation and you will have to enter into an Agreement with EBMUD to pay for (1) costs incurred to review, study and/or prepare relocation plans; and (2) costs incurred to relocate our facilities.

Please coordinate this project with Mr. Jon Chong. He can be reached at (510) 287-1095 and will be glad to furnish you other information as needed.

Thank you.

Very truly yours,

William Bode
Senior Civil Engineer
Distribution Systems Engineering

WBB:JC:vl

DOUGLAS M. FRALEIGH, Administrator
WARREN H. HARADA, Director
Public Works Administration
F.I. HODGKINS, Director
District Engineering
H.D. KERTON, Director
Solid Waste Management
TERRY T. TICE, Director
County Engineering

COUNTY OF SACRAMENTO

PUBLIC WORKS AGENCY

COUNTY ADMINISTRATION BUILDING
827 SEVENTH STREET, ROOM 304
SACRAMENTO, CA 95814

Phone: (916) 440-6581
Fax: (916) 440-7100

March 28, 1995

California Lands Commission
Attn: Ms. Mary Griggs
1807 13th Street
Sacramento, CA 95814

Subject: **DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT FOR THE MOJAVE NORTHWARD EXPANSION PROJECT Docket Nos. CP93-258-000 et al.**
State Clearinghouse No. 94032040

Dear Ms. Griggs:

In response to your request for comments regarding the above cited project, the following is a summary of replies from various Public Works agencies of Sacramento County:

1. Transportation Division - See the attached memo from Steve Hetland dated March 21, 1995.

2. Water Quality Division - See the attached memo from Bob Lilly dated March 22, 1995.

If you have any questions regarding this response, please call Bob Davison at (916) 440-6525.

Sincerely,

Douglas M. Fraleigh, Administrator
Public Works Agency

DMF:cwc/95-22
Attachments

cc: F.I. Hodgkins
Terry Tice
Warren Harada
Robert Shanks
Keith DeVore
Tom Zlotkowski

COUNTY OF SACRAMENTO
Public Works Agency
Water Quality Division Memorandum

March 22, 1995
E225.000

TO: Charlie Card
Public Infrastructure and Finance

FROM: Bob Lilly BL.
Water Quality Division

SUBJECT: **DRAFT EIR FOR THE MOJAVE PIPELINE NORTHWARD EXPANSION**
Dockets Nos. CP 93-258-000, et al.

Water Quality Division Staff has reviewed the subject document on behalf of Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District No. 1 (CSD-1) and has the following comments.

42-1 The alignment for the proposed gas main crosses and runs parallel to several planned and existing regional sewer pipes. Water Quality Division review of construction plans will be essential to protect existing facilities and to prevent conflicts with sewer lines to be constructed in the future.

If there are any questions regarding this matter, please call me at 855-8320.

BL:baf

cc: John C. Boehm

lilly/card22.mem/719

42-1 Thank you for your letter. We will pass this information along to Mojave. See our new section 2.4.3 on construction procedures for utility crossings. Mojave would coordinate with the Water Quality Division and submit plans with adequate time for review.

COUNTY OF SACRAMENTO

Intra-Agency Correspondence

March 21, 1995

To: Bob Davison
Public Infrastructure Planning & Financing Section

From: Steve Hetland
Transportation Division

Subject: **DRAFT ENVIRONMENTAL IMPACT REPORT/STATEMENT: MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT**
Docket Nos. CP 93-258-000, et al.

The Transportation Division has reviewed the subject Draft EIR/EIS including the proposed pipeline alignment, and would like the following items addressed during preparation of the environmental document(s):

42-2 **Coordination with the Transportation Division to create a traffic control plan to be implemented throughout the period of construction.**

42-3 **Coordination with the Transportation Division during the design stage to address future streets and ultimate right-of-way.**

42-4 **Evaluation of traffic impacts/delays during construction.**

If you have any questions, please call Kyle Hines at 440-5966.

KH

file:pipfs_deir_mojave_pipeline_exp

42-2 We will pass this information along to Mojave.

42-3 We will pass this information along to Mojave.

42-4 This issue is adequately addressed in section 5.7.2. Mojave would develop a traffic plan in coordination with appropriate agency officials.

RMC LONESTAR

6601 Koll Center Parkway
P.O. Box 5252
Pleasanton, CA 94566
(510) 426-8787

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FEDERAL ENERGY
REGULATORY
COMMISSION

March 21, 1995

Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street N.E.
Washington, D.C. 20426

RE: Docket Nos. CP93-258-000 ~~et al~~.

Dear Ms. Cashell:

43-1 RMC LONESTAR is an impacted Landowner with the proposed Mojave Pipeline Northward expansion project in the Livermore Valley as represented by the draft EIR/EIS route.

In prior conversations with Mojave personnel and in a meeting held with Mojave representatives on January 5, 1995 it was stated to them that RMC LONESTAR has strong concerns with and objections to the 1700 foot of pipeline route which would bisect our property. Alternative routes were suggested and illustrated to Mojave officials which would greatly lessen the impact on the landowners.

It is RMC LONESTAR's position that the only viable and acceptable route is to install the pipeline within the public road right of way.

Thank you for the opportunity to comment on this project.

Very truly yours,

J. L. Sheidenberger
Manager Property and Contract Administration

cc: Mr. Michael Boyle

✓

013. ltr

43-1 Thank you for your letter. Comment noted. We recommend that Mojave construct its pipeline primarily within road ROWs through the Livermore Valley. On this alternative route, the pipeline would run in Westmore Road, missing RMC Lonestar property. See section 3.4 for a description of the Livermore/Roadway Variation and section 6.4 for our recommendations.

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

Centers for Disease Control
Atlanta GA 30341-3724

March 21, 1995

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 - 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the Mojave Pipeline, Northward Expansion Project. We are responding on behalf of the U.S. Public Health Service.

44-1 We have reviewed the DEIS for potential adverse impacts on human health and believe our concerns have been addressed. We concur with the mitigation plans presented and the management of environmental inspectors to ensure compliance and appropriate mitigation measures.

Please ensure that our address is added to your list to receive a copy of the Final EIS and future EISs which may indicate potential public health impact and are developed under the National Environmental Policy Act (NEPA).

Sincerely yours,

Kenneth W. Holt

Kenneth W. Holt, M.S.E.H.
Special Programs Group (F29)
National Center for Environmental
Health

CC: Office of the Secretary, FERC

44-1 Thank you for your comment.

PLANNING DEPARTMENT
City and County of San Francisco 1660 Mission Street San Francisco, CA 94103-2414
(415) 558-6378 PLANNING COMMISSION FAX: 558-6409 ADMINISTRATION FAX: 558-6426 CURRENT PLANNING/ZONING FAX: 558-6409 LONG RANGE PLANNING FAX: 558-6426

March 27, 1995

FAXIMILE SENT 3/27/95
ORIGINAL MAILED SAME DATE

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capital Street, NE
Washington, DC 20426

California State Lands Commission
1807 13th Street
Sacramento, CA 95814
Attn: Mary Griggs

Re: Draft EIR/EIS Mojave Pipeline Northward Expansion Project
Docket Nos. CP93-258-000 et al

Dear Sirs and Mesdames:

The City and County of San Francisco submits the following comments on the Mojave Pipeline EIR/EIS. These comments consolidate issues and concerns about the EIR/EIS raised by various City/County departments, including the Department of Public Works, the Water Department, the Health Department, the Planning Department and the Port of San Francisco. Please note that the concerns noted here are limited to EIR/EIS issues and do not necessarily reflect all of the issues that will be raised when local permits are under review.

Introduction

Staff of the City and County of San Francisco are concerned about major omissions in the EIR/EIS on the proposed expansion of the Mojave Pipeline. The document fails to discuss impacts on several properties and facilities owned and operated by the City and County, and , therefore, fails to include appropriate mitigation measures to reduce the potential impacts.

45-1 It is unclear whether the Lead Agencies intend the EIR/EIS to be a Program EIR, prepared pursuant to §15168 of the State CEQA Guidelines, with supplemental documents providing details on construction impacts for each segment as it is proposed to be built, or whether the EIR/EIS was intended to be the only environmental analysis document for the entire project. If the latter, it seems to be inadequate in the detail provided on many topics for many locations.

While the proposed project is clearly large in scope, that in no way provides a basis for preparing an EIR at a "plan" level of detail if the intent is to construct the propose project based on this single document. The State CEQA Guidelines provides a useful measure in Section 15146, Degree of Specificity. "(a) An EIR on a construction project will necessarily be

45-1 Thank you for your comments; however, we disagree with your conclusions. We believe the EIR/EIS adequately addresses the impact of construction along the entire right-of-way with the specificity required and that appropriate mitigation to reduce potential impacts has been included. The Lead Agencies intend the EIR/EIS to be a project EIR; no supplemental documents are required.

45-1 more detailed in the specific effects of the project than will be an EIR on the adoption of a
local general plan or comprehensive zoning ordinance because the effects of the construction
can be predicted with greater accuracy." The proposed project appears to be a construction
project, and must cover the impacts of construction along the entire length of the proposed
alignments and alternatives. The fact that the project is several hundred miles long in no way
excuses the preparers from addressing the impacts in local areas with specificity. This is
particularly true because each local decision-making agency is required to use this EIR in
making findings related to a decision on the portion of the proposed project that is within its
jurisdiction, as Responsible Agencies under CEQA. (CEQA §21069 and State CEQA
Guidelines §15096(f) and (g).)

45-2 Based on statements made in Chapter 3 of the EIR/EIS, it appears that the Lead Agencies
and the EIR/EIS consultant propose to have local jurisdictions affected by the proposed
pipeline construction and operation prepare their own mini-CEQA documents in the form of
comments on this EIR/EIS. Page 3-29 requests that readers/commenters supply information
on Minor Route Variation alternatives to be included in the Final EIR/EIS. This is not
appropriate. It deprives the public and other concerned agencies of the opportunity to both
comment on the new information supplied and receive and review proposed responses to
those comments. Is this another hint that the EIR/EIS is prepared at a Program EIR level,
45-3 with supplemental documents circulated for public review and comment when details for each
local segment are available for analysis?? If this is the intent, it would be appropriate for the
EIR/EIS to be clear. If this is not the intent, it may be necessary to provide considerable
amounts of new information in response to comments; this new information could involve new
significant impacts and most certainly will involve new mitigation measures, both of which may
require recirculation for additional public comments.

General Comments

45-4 There appears to be little or no recognition in the EIR/EIS of the possibility that a local
jurisdiction might refuse permission to construct in its streets, cross its pipelines or improve
local roads. Nowhere in the EIR/EIS does the analysis acknowledge that local or regional
permitting agencies might impose additional mitigation measures to reduce impacts to local or
regional resources. The EIR/EIS must include mitigation measures that would reduce
45-5 potentially significant impacts whether or not the project proposes these measures and
whether or not a feasible measure would be implemented by the Lead Agencies. In other
45-6 words, there are large numbers of Responsible Agencies, as defined by CEQA, that may have
discretionary approvals over the portions of the proposed pipeline; the Draft EIR/EIS should
have disclosed mitigation measures that could feasibly reduce impacts regardless of who
might require the measure. The only measures that seem to be included in the document are
45-7 those proposed to be included in the project by the project sponsor and those that Federal
Energy Regulatory Commission (FERC) and California State Lands Commission (SLC) staff
would recommend to their decisionmakers. Again, a burden is being placed on local and
regional jurisdictions to, in effect, write portions of the EIR which are proposed to be placed in

45-2 Again, we disagree; no minidocuments would be required, and we believe it is appropriate to solicit comments from local agencies and the public. Early in the preparation of the EIR/EIS, we contacted the planning agencies of cities and counties along the route to identify local concerns and issues. Several local planning agencies availed themselves of the opportunity to suggest minor route variations to address specific local concerns from their perspectives. Because these were not available at the time of public scoping, we solicited comments from the public at large to ensure that any additional concerns would be addressed in the final EIR/EIS. The overall impact resulting from the minor variations identified does not differ significantly from the impact of the proposed route as is demonstrated by the comment letters received from the agencies in the locales most directly affected by the variations. The commentor has taken the statement of page 3-29 out of context and in doing so has misrepresented it. Our statement was: "At this time, we do not have sufficient information to conclusively establish that the 12 minor route variations recommended by local planning departments are environmentally superior to Mojave's proposed route in these locations. We are therefore, specifically requesting comments on the feasibility and environmental impact associated with the construction of these 12 alternative routes from all interested individuals." We also directed Mojave to provide detailed environmental, engineering, and economic analyses for inclusion in the final EIR/EIS. We believe that this was an important step in determining whether the significant effects of the project could be avoided or substantially lessened by putting the project in another location, as required by CEQA. We have used the comments received to "fine tune" the proposed route and have included the additional analyses in the final EIR/EIS as promised.

45-3 We disagree. The EIR/EIS is project-specific, not programmatic. The nature of the new information provided in response to comments is largely information on how certain site-specific conflicts can be resolved. No significant new impacts or mitigation have been identified; therefore, recirculation for additional public comments is not necessary.

45-4 We disagree with this characterization of the EIR/EIS. The possibility that local jurisdictions may deny permission is implicit. In section 1.4, we note that, in addition to the FERC's requirement for a Certificate of Public Convenience and Necessity, other Federal, state, or local regulatory agencies may have permit or approval authority over portions of the proposed project (see table 1.4-1). Such authority includes the agencies' responsibilities for ensuring compliance with the requirements of those permits or approvals. Mojave, as the project applicant, would be responsible for obtaining all required Federal, state, and local permits and for complying with all applicable state and local regulations unless said regulations are preempted by a Federal permit. Typically, further site-specific mitigation measures are required by other permitting agencies and attached to the necessary encroachment permits, etc.; however, any permits or approvals with requirements that would be in conflict with the FERC Certificate or that would not permit the applicant to meet its obligations under the FERC Certificate would be preempted by its Federal status. In such cases, the applicant would not be required to comply with the conflicting requirements of the state or local permits or approvals; however, permits or approvals and attached conditions required by state or local regulatory authorities that are not in conflict with the FERC Certificate would not be subject to Federal preemption.

45-5 We believe that our recommended procedures are sufficient to minimize environmental impact to the maximum extent practicable. The mitigation measures include measures not implemented by lead agencies. No change is required.

45-6 The EIR/EIS includes mitigation required by responsible agencies and others who participated in public scoping.

45-7 the Final document with no opportunity for comment and response to comment as called for in CEQA. This continues the impression that the Draft EIR/EIS is a Program EIR, with supplemental EIRs for individual construction segments as they are further researched and designed.

45-8 A glaring example of the lack of information about local and regional impacts and approvals required is shown quite early in the document. Table 1.4-1, on page 1-13 purports to list all permitting requirements for the proposed project. It completely omits any mention of the City and County of San Francisco. As noted in my letter of July 14, 1994, the City and County of San Francisco (CCSF) would require several approval actions for various segments of the proposed pipeline project, including Board of Supervisors action for permission to construction within City/County rights-of-way, and Port Commission action for use of port property at the end of the proposed Hunters Point segment. These and other permit requirements were also discussed in several meetings held with Mojave representatives and representatives of SLC and the EIR/EIS consultant during preparation of the Draft EIR/EIS.

45-9 The bare note (inexplicably listed under State of California) that "various water districts" would require "encroachment permits" for crossing water supply pipelines might have sufficed if the text had then detailed, in the Environmental Consequences (CEQA "Environmental Impacts" section), what the impacts of the pipeline crossings would be. However, insufficient information is provided in the EIR/EIS text discussion, so this minuscule "summary" of potential encroachment permits from, for example, the San Francisco Public Utilities Commission for crossing the Hetch Hetchy Aqueduct that supplies water to 2.5 million people in San Francisco and 33 suburban communities, hardly provides the analysis required for a Responsible Agency to cite the EIR in its decisionmaking process. If localized Supplemental EIR's are not to be prepared for each segment as more detailed information is obtained, how are local and regional agencies to make the findings required by the California Environmental Quality Act?

45-10 Crossing the Hetch Hetchy Aqueduct and its pipelines, including the Bay Division Pipelines 1, 2, 3, and 4 and numerous smaller (less than 60") water supply pipelines, would require permits, with conditions, from the San Francisco Water Department, with review by the San Francisco Public Utilities Commission if current practice continues to be followed. Note that the proposed natural gas pipeline would cross portions of the aqueduct system several times, not merely once. Further comments on this issue are provided in the more specific comments below.

45-11 Use of CCSF street rights-of-way could require appropriate authorization from the Board of Supervisors, including but not limited to easements, permits and/or franchises. Additional details on permits and approvals that may be required for construction within the boundaries of the City and County include street excavation permits and street space permits for staging activities from Public Works Bureau of Street Use & Mapping, permits for discharging construction dewatering water from Public Works Bureau of Environmental Regulation and Management, traffic permits from the Department of Parking and Traffic to establish

45-7 We disagree with this characterization of the EIR/EIS. The FERC- and SLC-required mitigation would apply to the entire route regardless of location. Again, the commentor misconstrues the EIR/EIS. Rather than placing a burden on local and regional jurisdictions, the FERC and SLC have sought to make sure that mitigation is fully enforceable, as required by CEQA (Public Resources Code, §21081.6) by recommending to their respective commissions that the mitigation measures identified in the EIR/EIS become permit conditions. We have identified mitigation for all known significant effects. We would expect that any additional mitigation imposed by local jurisdictions as part of local permitting could further reduce less than significant effects.

45-8 Comments accepted. See table 1.4-1 which has been amended to include the cited City/County permits.

45-9 It is certainly not our intention to minimize the importance of the San Francisco Public Utility System's Hetch Hetchy Aqueduct; however, the crossing of existing utility lines is a normal part of pipeline construction and with the implementation of Mojave's proposed mitigation, is not expected to result in adverse impact. We have revised sections 2.4.2 and 5.3.3.2 to explicitly state that Mojave would bore or bridge all water supply canals, aqueducts, and lined irrigation canals. We have also added a new section 2.4.3.1 to clarify the construction procedures that would be used to cross utilities. No other significant impacts can be reasonably expected to occur. Further site-specific mitigation measures may be required by the City of San Francisco or other permitting agencies and attached to the necessary encroachment permits. See response to comment 36-3. We used the best available information in evaluating the potential impact associated with the construction of the proposed project and alternatives and have concluded that the analysis in the EIR/EIS and the proposed mitigation would enable local and regional agencies to make the findings required by CEQA.

45-10 We assume that current practice continues to be followed. See revised table 4.3.2-1 for inclusion of the omitted crossings.

45-11 Thank you for this specific guidance. The specific permits and approvals cited have been added to table 1.4-1. Most other cities and counties provided information on the required permits as part of our public scoping or in response to our letters requesting information early in the preparation of the EIR/EIS. We requested this information from the City and County of San Francisco by letter in June 1994.

45-11 requirements related to traffic disruptions during construction, a Building Permit from the Department of Building Inspection for construction of the proposed Meter Station, and review of a plan for hazardous soil disposal or treatment measures by the San Francisco County Health Department pursuant to Article 20 of the San Francisco Public Works Code. If street trees would need to be removed, San Francisco requires a permit, with posting of notices and a public hearing upon request. One of several of the approvals for street excavation, the City and County requires 95% compaction for backfill. In addition, the City and County Public Works Code §374 places a moratorium of three years on construction in newly paved streets without a special variance from this limitation that would be considered by Public Works.

Placement of the proposed pipeline and a possible meter station on Port of San Francisco property (the maps appear to suggest an end point to the "Hunters Point Segment" at Pier 94-96) would require approval by the San Francisco Port Commission and a building permit from Port staff.

One of the purposes of the "approvals required" subsection of a Project Description in an EIR is to inform the project sponsor, the decisionmakers and Responsible Agencies, and interested members of the public where the "action" will be as the proposal is considered by various public agencies. This Draft EIR/EIS does not serve the intended informational purpose (State CEQA Guidelines §15124(d)). While the Guidelines section provides the "out" that approvals be listed "to the extent...known to the Lead Agency," it does not appear that much effort was made to find out prior to publication of the Draft EIR. It is likely that other counties or cities along the route require more than the "encroachment permit and conditional use permit" generically repeated in Table 1.4-1. It is worthy of note that it is not likely that a conditional use authorization would be required in San Francisco unless the meter station is proposed to be located in a zoning district which requires CU authorization for this type of use. Because the maps provided are not specific enough, this can not yet be researched.

The EIR/EIS also fails to note that a small portion of the Hunters Point segment appears from the maps to use a San Francisco-owned right-of-way that parallels the CalTrain right-of-way. Use of this property would require permission from the San Francisco Public Utilities Commission and the Board of Supervisors, rather than (or perhaps in addition to) permission from the CalTrain Peninsula Commute Service Joint Powers Board and Southern Pacific Railway.

In summary, the EIR/EIS is so generic that it fails to in any way report the approvals required for the portions of the pipeline that fall within the jurisdiction of the City and County of San Francisco. Neither the project sponsor, nor the public are aided by the lack of information.

45-12 The EIR/EIS also fails to describe the potential impacts of some of the proposed mitigation measures (some examples of this problem are noted below). The mitigation measures are also presented in very general ways, with no indication of where various alternative measures would be more appropriate, who will decide which measures would be used along which segments of the proposed project, and what the bases for the decisions will be. It is worth

45-12 We disagree with this characterization of the EIR/EIS. In those limited instances where site-specific mitigation has not been finalized, the EIR/EIS specifically identifies the potential mitigation, which, when implemented singly or in combination, would substantially reduce the significant effects of the proposed project. The FERC and SLC staffs will decide which measures should be implemented based on their expertise and in consultation with the responsible agencies. The mitigation monitoring plan will be prepared by consultants for the SLC.

45-12 noting that the State Lands Commission controls only .2% of the alignment of the Core
Project, (1.2 miles), various Federal agencies control about 7.5% (about 39 miles) and the
remainder of the core project--520 miles or 92%--is controlled by "county, city or private"
owners. Who will prepare the Mitigation Monitoring Plan required by CEQA? How will various
45-13 permitting agencies be included in preparation of the required Mitigation Monitoring Plan,
especially if they may not have yet received applications for necessary permits? This is
especially difficult because it appears that neither the Lead Agency nor the Project Sponsor
have complete knowledge of all of the permits that may be required.

45-14 Selection of appropriate mitigation measures is essential as part of the decision-making process and must be done before a Mitigation Monitoring Plan can be considered for adoption. If impacts of various mitigation measures are not disclosed, the selection of mitigation measures will certainly be an uninformed decision.

Alternatives

The Interstate 680 corridor Southward Alternative Route is described in Chapter 3, pages 3-10
and 3-15 to 3-20. It would replace a portion of the Palo Alto segment alignment in the
Alameda County Coast Range. Page 3-10 summarizes this alternative as "The I-680 corridor
45-15 from Pleasanton south to Fremont;" however, the Figure in Chapter 3, and figures in Volume II
make it clear that it would begin in Sunol, not Pleasanton. As an aside, Figure 3.3.3-1 would
be much more useable by the reader if it included not only general political jurisdictions, the
proposed project and alternatives and San Francisco Bay, but also the major sensitive areas
discussed in the text, such as Brushy Peak and Los Vaqueros Project area. The evaluation of
this alternative in Chapter 3 indicated that it was "carried forward" because it could be
environmentally preferable (page 3-20), based on the environmental criteria shown in Table
3.3.3.2-2.

45-16 The alternative was rejected in Chapter 6 as "buildable but not preferable alternative route."
(page 6-3) The analysis in the EIS/EIR (one paragraph plus 1/3 of Table 6.0-1) suggests that
the basis for this not being a preferable route is that the route "would affect significantly more
nearby residences and would cross many more streams." This analysis is based on precisely
the same information as was presented in Chapter 3 in Table 3.3.3.2-2, with no new data
presented and no further discussion provided. It ignores substantial environmental benefits of
45-17 this alternative, as shown in the Table, such as a substantial reduction in the number of acres
of potential special status species habitat affected (from 85 to 36), a substantial reduction in
miles of steep slopes (from 10 to 3), and a truly significant reduction in miles of potential
landslides crossed (from 8.6 to 0.2). The short-term construction impacts on 45 additional
residences and the fully-mitigable construction impacts of crossing additional streams
(according to the analysis on pages 5-22 to 5-24) appears to be traded off against mid-term
impacts on twice as many acres of special status species habitat (presuming the
Environmental Consequences analysis is correct and that impacts could either be mitigated or
be offset by compensation funds or acreage during the first few years after construction, as

45-13 The agencies responsible for mitigation will be identified in the plan. The SLC will have the primary CEQA responsibility for monitoring.

45-14 Extensive mitigation is identified in the EIR/EIS. In some limited instances, site-specific mitigation plans would need to be developed from the range of mitigation measures identified as suitable for certain types of impact but would not preclude developing a mitigation monitoring plan or making an informed decision.

45-15 Comment noted. Figure 3.3.3-1 was intended to give the reader an overview of all of the Bay Area alternative routes and their relationship to one another. For example, including Brushy Peak, which is about ½ mile from the proposed route, on a map of this scale would give the appearance that the proposed route crosses it. Because it is difficult to accurately portray features at this scale, the specific features crossed by the routes were presented in the Map Volume.

45-16 Comment noted.

45-17 Each alternative was presented in section 3 so a decision could be made as to its reasonableness. If not considered reasonable, an alternative was not evaluated in further detail. Because of the commentor's suggestion of environmental benefits of the I-680 Southward Alternative, we evaluated the route again in greater detail. See revised section 6.3. Our conclusion stands that we do not consider the I-680 corridor Southward Alternative to be the preferred alternative. CalTrans does not allow longitudinal encroachment on its interstate highway system; therefore, construction adjacent to I-680 is not possible through the Mission Pass area because of the narrowness of the cut through the pass and the steepness of its sides. This would require the pipeline to diverge from the highway corridor and affect more private landowners, more nearby residences, and more acres of special status species habitat. In a letter dated March 27, 1995 (comment letter 56), the City of Fremont supported the proposed route over the I-680 corridor due to the significantly greater impact of the I-680 corridor. No other commentor suggested that the I-680 corridor alternative would be preferable to the proposed route.

45-17 described on pages 5-51 to 5-55) and the potential long-term impact of operating in an area where substantial landslide potential threatens the proposed pipeline with disastrous consequences.

45-18 It is not clear that this alternative is not the environmentally preferable one, on balance. City and County of San Francisco staff suggest that this alternative be re-examined. In addition to the notable reductions in potential environmental impacts, this alternative would avoid the temporary construction-related impacts to the San Francisco watershed in this area and to San Antonio Reservoir from erosion and possible impacts to plant and wildlife habitats on the watershed.

Geology

45-19 Table 4.1.1.1-1 lists major geologic features along the pipeline alignment. Page 5-18 discusses "asbestos-containing soils". In neither location does the EIR/EIS note that in San Francisco portions of the alignment may encounter serpentine rock which contains a form of naturally-occurring asbestos (chrysotile). This material may require special handling during excavation, according to the Bay Area Air Quality Control District and the U.S. EPA Region 9 staff. Based on City and County of San Francisco projects, and as directed by the San Francisco Health Department, we have required contractors to wet the soil with a constant fine mist and to take regular air samples during construction in this type of soil. Tests are also required to determine the amount of asbestos in the soil in order to determine appropriate disposal methods. These, or other feasible mitigation measures for handling serpentine soils, must be included in the EIR in order to protect the public and construction workers from exposure.

45-20 Mitigation measures suggested in Chapter 5 to minimize the effects of geological problems on the proposed pipeline often would have impacts of their own. For example, stabilizing landslides by remedial grading (page 5-5) in the San Francisco watershed area along the Palo Alto segment (generally in the areas of MP 10 through 20) could seriously impact wildlife habitat, sensitive species and the quality of the water supplied to San Francisco and the SFWD customers. Impacts of mitigation measures must be discussed in an EIR. The mitigation measure mentioned would be unacceptable in San Francisco's Alameda County watershed areas; discussion of the impacts of the mitigation measure might aid in establishing an appropriate mitigation monitoring plan for the proposed project, as required by CEQA.

45-21 The EIR/EIS proposes a general mitigation measure for geologic hazards on page 5-2 in the form of a Geologic Hazards Mitigation Plan to be prepared prior to construction and to be approved by FERC's Director of the Office of Pipeline Regulation. No public input is proposed, and, apparently, no review by the various local and regional agencies that must authorize construction through their jurisdictions. While mitigation monitoring plans need not, and usually should not appear in the EIR because the specific group of mitigation measures to be required are not yet known, in this case it is important to describe the process of selecting mitigation measures and indicate how all of the Responsible Agencies are to be included.

45-18 The document shows that there would be no significant impact to either the San Francisco watershed or the San Antonio Reservoir with implementation of the erosion control and revegetation procedures that are included as part of the project; therefore, there is no reason to factor this issue into the selection of the preferred alternative. We believe impact on plants and wildlife habitat would also be mitigated to less than significant levels by revegetation and/or compensation.

45-19 Comment accepted. While we do not expect this to be a major concern since most construction in San Francisco would take place within city streets, we have amended section 5.1.3.3 to include this mitigation.

45-20 Comment noted. Section 5.1.2.2 states that some or all of the mitigation measures for slope instability would be incorporated into mitigation design. The actual measures cannot be determined until the geologic hazards study is conducted during the detailed design phase of the project. If a measure such as remedial grading would adversely affect wildlife habitat or water quality, the measure is probably not appropriate for the area. Clearances would be obtained from the proper agencies before any measures are implemented.

45-21 The EIR/EIS clearly specifies the range of mitigation measures that would be used for each type of geologic hazard; the public may comment on these measures. The Geologic Hazards Mitigation Plan would identify from the range of alternatives presented the mitigation most appropriate for the specific site. The FERC and SLC staffs would determine the mitigation to be required in consultation with the responsible agencies.

45-22 Mitigation measures listed for soil liquefaction problems could impact the San Francisco Water Department water supply pipelines such as the Bay Division Pipelines 1 and 2 (would be crossed both by the Fremont Segment and shown on Map 35 as Hetch Hetchy Aqueduct) and by the Hunters Point Segment (NOT shown on Map 31--the Aqueduct is on the map as the usual dotted line and would be crossed in about Redwood City), where these pipelines might be in sandy or liquifiable soils. One of the possible mitigation measures is grouting; if grouting were used in areas of water supply pipeline crossing, it might be impossible to access the water supply pipe. Another mitigation measure suggested is in-place compaction; this measure could cause damage to SF Water Department pipelines if carried out in the immediate vicinity. While it is not possible to evaluate the potential extent of the impacts of the proposed mitigation measures without more detailed information, it is likely that the Water Department and the San Francisco Public Utilities Commission would prohibit, in their pipeline crossing permits, use of any "mitigation" measure that might cause future damage to these main water supply facilities that serve much of the San Francisco Peninsula.

45-23 Bay Muds are noted to be likely in San Mateo and South San Francisco on the Hunters Point Segment (p. 5-6). It is likely that this soil type would be encountered in San Francisco as well, near the end point of the Hunters Point segment and possibly along Harney Way south of Candlestick Park stadium.

45-24 Table 5.1.2-1, Areas of Potential Significant Geologic Impact seems to list mainly locations of notable ground shaking or landslide potential and sites of actual earthquake faults. The Hunters Point Segment is not included. Does this mean that the authors of the EIR/EIS think that earthquake shaking is not likely for the San Francisco peninsula from Palo Alto north? Clearly this is not accurate, and the appropriate map (Map 29 in Volume II) notes the possibility in the Geology portion of the figure. However, their is neither acknowledgement nor analysis in the EIR/EIS text.

Soils

45-25 The discussion of Steep Slopes on page 5-17 describes special construction problems that would be encountered when constructing in difficult terrain, but there is no discussion of what kinds of impacts might occur. Construction in such areas could cause major erosion (the only impact noted on page 5-17, and without noting how the erosion could cause additional impacts) and could certainly affect the ability to repair and reconstruct the area for planting following construction. If these areas are located in San Francisco's Alameda County
45-26 watershed area (the portions of the Palo Alto Segment near the Calaveras and San Antonio reservoirs), they could impact the water supply for several million users, both during and after construction. Mitigation measures or considering rerouting the proposed pipeline are essential, yet nothing is discussed in the paragraph on this issue. Since all other topics in this
45-27 subsection include a discussion of mitigation for the impacts disclosed, it appears that something was omitted; since the impacts discussion provided was incomplete, the discussion needs augmentation for both impacts and mitigation measures. It appears that the I-680

45-22 Comment noted. Mojave would coordinate its geotechnical and other design criteria for utility crossings with the jurisdictional agency during the detailed design phase of the project.

45-23 Comment noted.

45-24 Comment accepted. See revised table 5.1.2-1.

45-25 Comment accepted. See revised section 5.2.3.

45-26 Comment accepted. See revised section 5.3.3.2.

45-27 As stated at the beginning of section 5.2.3, Mojave would develop site-specific plans to address the details of erosion control on steep slopes. The FERC and SLC staffs believe that their recommended procedures would be sufficient to minimize environmental impact to the maximum extent practicable. No change is required.

45-28 South route would solve this problem and would solve the construction problems of working in this type of terrain.

Water Resources

45-29 The Water Resources sections provide no information on potential impacts to the water supply for 2.5 million users from crossing and recrossing the main supply pipelines. These are not typical "in-street" water mains, but major aqueducts of 5-foot diameter or larger. They supply water to all of the City and County of San Francisco, much of the San Francisco Peninsula and users in Alameda County. Any damage to the Hetch Hetchy Aqueduct, the Bay Division Pipelines which extend the Aqueduct into the Bay Area would interrupt service to a huge population, causing major environmental impacts. The detailed maps provided in Volume II note three crossings of the Hetch Hetchy Aqueduct on Maps 11, 28 and 35, but misses at least five additional crossings in the Palo Alto Segment. For example, on Map 29, near MP 30 the Palo Alto Segment would cross the Hetch Hetchy Aqueduct (Bay Division Pipelines # 3 and 4) three times in less than a mile, none of which are identified on the graphic portion of the figure. Whether or not the crossings are mapped, there is no discussion of potential impacts either during construction or during operation and maintenance of the proposed gas pipeline, and no mitigation measures to avoid disruption of water service to millions of users.

45-30 Perhaps the footnote to Table 4.3.1-2 explains why so much information about the San Francisco Water Department and its water supply facilities was left out of the EIR/EIS: Note c/ to this table lists "the major drinking water purveyors by county" for Alameda County as Alameda County Water Agency (the largest purveyor in that county is East Bay Municipal Utility District, which supplies about 1.5 million customers or more), for San Mateo County as "City of San Mateo" (the major supplier is the San Francisco Water Department) and for San Francisco as "City of San Francisco", correct but more accurately, the San Francisco Water Department. The San Francisco Water Department also serves communities in Alameda County. It appears that the EIR/EIS authors were not acquainted with the size and extent of the San Francisco Water Department service area, despite several meetings with Water Department staff during preparation of the EIR/EIS.

45-31 The Affected Environment section on Water Resources includes no discussion of groundwater for the Hunters Point or San Francisco segments of the proposed project (see pp 4-37/38). Based on the location as shown in Volume II maps, groundwater would be encountered close to the surface along parts of both segments.

45-32 Table 4.3.2-1 lists Surface Water Crossings and notes two of the Hetch Hetchy Aqueduct crossings. For the Palo Alto Segment, the three crossings near MP 30 are not listed, presumably because they are not included on Map 29, as noted above. In addition, the table indicates that the crossing of the Hetch Hetchy Aqueduct would be "S", sensitive. Crossing Alameda Creek and San Antonio Creek would be at least as sensitive as the aqueduct.

45-28 This problem would actually be exacerbated on the I-680 South route. See responses to comments 45-17 and 45-18.

45-29 See response to comment 45-9 and new section 2.4.3 for a discussion of utility/ pipeline crossing procedures.

45-30 Comment noted. The Water Department staff provided neither written information nor maps describing the size and extent of the San Francisco Water Department service area for use in preparing the EIR/EIS. The information needed to adequately assess impact has been included in the document.

45-31 Comment accepted. The segments are addressed in tables 4.3.1-1 and 4.3.1-3. See revised section 4.3.1.3.

45-32 Several typographical errors were noted under the "Sensitive Crossing" heading in table 4.3.2-1. An "S" in that column was intended to denote sensitive biological resources only.

45-33 Table 4.3.2-2 summarizes surface water quality problems along the proposed route of the gas pipeline. It indicates that Alameda Creek is impaired due to wastewater discharges. This is not accurate, at least for the portions of that creek that flow into and out of the Calaveras Reservoir within the San Francisco watershed. The same error is repeated on page 4-42 of the text.

45-34 The discussions of blasting, both in the Water Resources section (pp. 5-20 and 5-22/22) and
in the Geology section (p. 5-2) include no mention of potential impacts to any water supply
pipeline systems, belonging to San Francisco or any other water supplier. The discussion
under Site-Specific Impact and Mitigation recommends that a Groundwater Monitoring Plan be
prepared related to blasting that might affect "domestic and irrigation supply wells [emphasis
added]". Still, no mention is made of domestic supply pipelines. Potential locations of
blasting should be identified; this will enable analysis of specific impacts to any of the San
Francisco Water Department/Hetch Hetchy system facilities and development of appropriate
mitigation. Providing this information only in the Final EIR/EIS will not provide an opportunity
45-35 for public comment; it may be, if new, potentially significant environmental impacts are
identified, that recirculation of the new information on this and other topics is called for under
CEQA and the State CEQA Guidelines.

The discussion of Site Specific Impacts and Mitigation for surface water suggests a mitigation
measure for situations when boring under the surface water resource might turn out to be
impossible, generally for geotechnical reasons. The measure suggests that an open-cut plan
be filed, with reasons why the directional drilling technique originally proposed to be used
wouldn't work, what impacts open-cut construction would have, and including appropriate
Corps of Engineer and state permits (again ignoring local permits). (See page 5-27.) The
45-36 project proposes to use directional boring under the two crossings of the Hetch Hetchy
Aqueduct noted in the analysis; ignoring, for the moment, the other 7 or 8 crossings of this
water supply facility, what would be the alternative to boring under the Aqueduct, with what
impacts, and what mitigation is proposed for those impacts? Clearly one can't choose open
cut construction in this circumstance. The report to FERC and SLC, prepared long after the
45-37 EIR/EIS is finalized and the overall project is (presumably) approved, will do nothing to inform
the public of potential impacts and available mitigation measures, and will no aid local
decisionmakers in establishing appropriate conditions on construction in their areas. The
impact analysis is too limited, and the mitigation measure proposed is inadequate in that it
would not inform the public and may not solve the problem of inability to bore under major
water supply pipelines.

45-38 The paragraph on impacts to reservoirs (page 5-29) fails to acknowledge the San Antonio and Calaveras reservoirs located in the San Francisco watershed in Alameda County. The proposed natural gas pipeline route would cross the watershed and could cause erosion and send sediment into either or both reservoir.

45-33 Although the EIR/EIS cites the State Water Resources Control Board's 1990 miles; therefore, no change is required.

45-34 Section 2.4.1 discusses the need to take precautions in areas where blasting is required to prevent damage to underground structures such as pipelines. Areas potentially requiring blasting are identified in table 5.1.2-1 as areas having "potentially difficult excavation." The construction contractors, at this time, do not believe that any blasting would be required to construct the proposed project. Table 5.1.2-1 has been revised to include the Hunters Point and San Francisco segments.

45-35 We disagree that the information in the EIR/EIS is inadequate. As has been discussed previously, it is not anticipated that blasting will be necessary to construct the project. Nevertheless, areas in which the geology is such that blasting may be necessary are identified in table 5.1.2.1. Likewise, measures which will be implemented to prevent blasting from damaging nearby structures such as pipelines and aqueducts are discussed in section 2.4.1. No additional mitigation measures or significant impacts have been or can reasonably be expected to be identified. As a result, the EIR/EIS is legally adequate as an informational document and no recirculation is required. See CEQA Guidelines Section 15088.5.

45-36 The option of using open-cut construction if directional drilling is not feasible from a geotechnical standpoint applies to surface waterbodies which may extend for 100 feet or more, not pipelines or aqueducts. See revised section 2.4.3 for a discussion of utility and pipeline crossing techniques.

45-37 We disagree with your comment. Impact and mitigation are clearly stated in the EIR/EIS. As previously stated, local agencies may impose additional conditions as part of their permit process.

45-38 Implementation of the Upland Erosion Control, Revegetation, and Maintenance Plan (appendix A) and Wetland and Waterbody Construction and Mitigation Procedures (appendix C) would minimize erosion and sedimentation to the maximum extent practicable and impacts would be less than significant. The San Antonio and Calaveras reservoirs have been added to the discussion of reservoirs in section 5.3.3.2.

Vegetation and Wildlife

45-39 The discussion on page 4-69, in the Affected Environment chapter, suggests that there are vernal pools found along the Palo Alto Segment alignment. However, Table 4.4.2.3-1, covering Vernal Pools and Nonnatural Ponding Areas In or Adjacent to the Proposed Route, lists no vernal pools or ponding areas along the Palo Alto Segment. Which is correct?

45-40 The data on the Golden Eagle provided on pages 4-81 and 5-68/69 is incomplete. These eagles have been sited on the San Francisco watershed in Alameda County. San Francisco Water Department staff can supply the name of an appropriate contact person in the East Bay who could provide more information.

45-41 The discussion of the San Francisco Garter Snake on page 4-82 and notations on Map 31 imply that it is not sure that the snake is located along the Hunters Point Segment. In fact, several studies have been done in the area west of U.S. 101 at about MP 18 of the project alignment and one of the larger communities of the snake is known to inhabit the area. It is not "potential" snake habitat, it is known habitat of the SF Garter Snake; construction in that area will require substantial mitigation. The impacts discussion for special status species implies that further field studies will be needed primarily because access was not made available (pp. 5-52 and 53). This cannot be the case for the West of U.S. 101 property, first, because it belongs to the San Francisco International Airport and SFIA has give permission to several others to perform surveys for the SF Garter Snake, and second because regardless of physical access, several studies have been published by experts in the field. Perhaps those researching for the EIR/EIS did not bother to call any of the (3 or 4) recognized experts on the snake?

45-42 Table 5.6.2-1 describes the habitat type of the Hunters Point Segment as "urban". While this is generally true, the small area inhabited the SF Garter Snake is undeveloped except for the rail right-of-way and some power line structures. There may be other non-urban locations along the Hunters Point Segment within other jurisdictions on the alignment. Table 5.6.3-1 summarizes mitigation intended to reduce impacts on the SF Garter Snake. Note that the FWS and DFG are likely to require revegetation with exactly the plants that are presently on the site, rather than use of a commercial seed mix. The EIR/EIS should include a discussion of cumulative impacts on the SF Garter snake population due to construction of the proposed gas pipeline together with construction of the BART Expansion to the Airport project.

45-43 Habitat for the Red Legged frog has been found along Alameda Creek (see Final EIR, Calaveras Pipeline, San Francisco Planning Department); the area proposed for crossing should be more thoroughly surveyed and current likelihood reported in the EIR/EIS.

Land Use

45-44 Figure 1.1-1 indicates that there could be a stockpile area at the beginning of the Palo Alto Segment; this stockpile is not shown on the detailed map of this same area (Map 28 in

45-39 Section 4.5.3.1 discusses the similarity in wildlife associated with wetlands including vernal pools in the Coast Ranges and the Central Valley. It does not state that vernal pools would be crossed by the Palo Alto Segment. Table 4.4.2.3-1 correctly indicates that no vernal pools occur in or adjacent to the proposed Palo Alto Segment.

45-40 We have consulted with both the FWS and DFG about the impact on golden eagles and the required mitigation. Golden eagles are discussed in sections 4.5.3.1 and 4.6.3.1. Specific mitigation for golden eagles is presented in section 5.6.3.3.

45-41 In order to protect special status species from increased disturbance by humans, the locations of their habitat on the maps were intentionally vague. The route is within the railroad right-of-way to which access was denied when the biologic surveys were conducted. Since then, the FERC and SLC staffs have continued discussing the impact on the San Francisco garter snake habitat and the required mitigation in detail with the FWS and DFG. See updated information in section 5.6 regarding Mojave's intent to bore under this habitat and the appended Biologic Opinion.

45-42 See response to comment 45-41.

45-43 We have consulted with both the FWS and DFG about the impact on the California red-legged frog and the required mitigation. See the appended Biologic Opinion.

45-44 The proposed stockpile is within a railroad yard, and its use for the proposed project would have no adverse environmental impact.

45-44 Volume II). Is it proposed and if so, where? What are the surrounding land uses, and what impact might the proposed stockpiling activity have?

45-45 Table 4.7.1.1-2 purports to summarize land ownership along the proposed project alignment. In lumping together county, city and private ownership, the EIR/EIS fails to fully describe over 90% of the property, since public and private ownership and property rights and permitting authorities are quite different. It would be much more valuable if city, county and private ownerships had been separately estimated.

45-46 Table 4.7.2-1 lists major highway crossings. The Hunters Point Segment is shown crossing US 101 at about the San Francisco City and County line on Map 32. As it is presently proposed to run west of the highway through Brisbane and east of the highway through San Francisco, some sort of crossing must be proposed...

45-47 Table 4.7.1.1-3 indicates that over 100 residences could be within 50 feet of a 1-mile segment of the pipeline alignment in San Francisco along the Hunters Point Segment. While much of the alignment is in commercial areas, San Francisco's residential density is such that a one-mile segment could have over 400 dwelling units (standard lot size in all but very small areas of San Francisco is 25 x 100').

45-48 Table 4.7.3-1 lists Candlestick Park Stadium, adjacent to Candlestick Point State Park, along the proposed pipeline alignment, but explains that Jamestown Road separates the stadium and park from proposed route. Does this mean the route instead would encroach on the edge of Bayview Hill, a City Park? If so, additional approvals would be required from Recreation and Park Department staff and the San Francisco Recreation and Park Commission. If not, then the pipeline is proposed for Jamestown Road itself, in which case the road could not separate the project from the stadium.

45-49 The discussion of land use impacts of the Hunters Point Segment, on page 5-97, states that one of the alternatives for the proposed BART Extension to San Francisco International Airport could be precluded by construction of the proposed pipeline. Could not the BART project preclude use of the preferred route by the proposed natural gas pipeline?

45-50 The Hunters Point Segment meter station appears to be located on property under the jurisdiction of the Port of San Francisco. This property is industrial in nature (Map 32 appears to label it "residential"; there are residential uses nearby, but the Port property is not residential). However, the location appears to be on the Port's intermodal terminal; the 100' x 100' area called out for meter stations could interfere with transportation areas of Pier 94-95. The precise site will need to be established working with Port staff and will require approval by the San Francisco Port Commission. It may be that the meter station would be best located below ground in order to avoid interruptions to truck and rail access at Piers. 45-51 Although not described in the land use impacts section, the Project Description discusses valves as being above ground (Section 2.4.5). SFDPW staff note that PG&E valves are all constructed below ground in vaults; generally this type of equipment must be under ground in San Francisco.

45-45 Comment noted. The purpose of table 4.7.1.1-2 is to distinguish, at a glance, between local and Federal and state jurisdictions that would be affected by the proposed project.

45-46 Comment accepted. See revised table 4.7.2-1 which now includes these crossings.

45-47 Comment noted.

45-48 Yes, the pipeline is proposed to be in Jamestown Road right-of-way.

45-49 Comment accepted. See revised section 5.7.1.3.

45-50 Mojave intends to locate the meter inside the proposed power plant in an area that would not interfere with traffic. Underground meter stations are cost-prohibitive and operationally impractical. The California Energy Commission is evaluating the proposed power plant siting as part of another proceeding.

45-51 Mojave intends to place all mainline valve bodies below ground; however, the actuator and any instrumentation would likely be aboveground to facilitate operation and maintenance. Mainline valves would be completely enclosed in a vault where deemed necessary.

Transportation

45-52 The criteria for evaluating transportation impacts include whether or not the proposed project would limit access to a regionally recognized recreation area during its peak use period (page 5-100). Page 5-104 recommends that the project sponsor "minimize" conflicts with scheduled events at Candlestick Park. San Francisco staff suggest that this be changed to "eliminate" conflicts, as that is certainly possible and would be the only way to mitigate the impact to a level of insignificance. Peak use at Candlestick involves up to 60,000 attendees; the traffic from these events already severely strains the surrounding residential neighborhoods. Any construction interfering with traffic access to the stadium would cause unacceptable levels of traffic delay and backup.

Socioeconomics

45-53 Section 5.8.2 indicates that the mailing list (presumably for the EIR/EIS?) includes "all affected property owners" within 50 feet of the proposed project's construction activities (p. 5-111). The Distribution List included in the EIR/EIS definitely does not include all property owners along Third Street in the project area shown on maps of the Hunters Point Segment in San Francisco. Is there an additional distribution list?

45-54 Please note that some residents of the South Bayshore Neighborhood, through which most of the San Francisco portion of the Hunters Point Segment would be built, are opposed to the proposed San Francisco Energy Company cogeneration facility that the Hunters Point segment of the natural gas pipeline was intended to serve. Many members of this community also feel that they bear a large, perhaps disproportional share of potentially hazardous industrial uses. Thus, many of the local residents are likely to be opposed to the proposed pipeline, as it may be seen as yet another hazardous use in their neighborhood.

45-55 There is no discussion of the potential socioeconomic impacts of construction along the commercial portions of Third Street in San Francisco. Because there is a somewhat negative image of the Third Street retail corridor, in part based on public perception and in part based on crime problems, the economic climate in this area is not the best (based in part on *Real Estate Economics, Hunters Point Shipyard Reuse Plan*, by Williams-Kuebelbeck & Assoc.). The EIR/EIS should provide an analysis of what economic impacts might occur to this retail corridor as a result of pipeline construction.

45-56 Public Works Department staff note that Section 5.8.2.1 states that non-local workers are most likely to be hired to construct the proposed natural gas pipeline. San Francisco's experience with non-local contractors for in-street construction in our utility-dense streets has not been good. It two recent cases a gas line was ruptured and a high pressure steam line was ruptured, both causing damage and inconvenience to nearby businesses and residents. Both occurred even though DPW staff briefly reviewed the proposed plans and imposed standard conditions of approval, because the fee structure and review effort are geared toward local utility companies that require a minimum of "hand holding." Please advise Mojave that DPW

45-52 Mojave has agreed to minimize conflicts; however, unforeseen conflicts may arise that cannot be eliminated. No change is required.

45-53 The mailing list for the draft EIR/EIS included both the distribution list printed in the draft EIR/EIS and approximately 2,300 addresses to which copies of the Executive Summary were sent.

45-54 On February 27, 1995, we held a public meeting at the Earl P. Mills Community Center. No adverse comments were received.

45-55 Based on our significance criteria, we do not believe that the temporary socioeconomic impact on the Third Street commercial area would be significant. Section 5.7.1.2 discusses the temporary impact and mitigation for commercial/industrial areas such as Third Street.

45-56 Mojave would reimburse reasonable costs of additional preconstruction services performed by the DPW in addition to the usual excavation and permit fees.

45-56 will expect payment of actual costs of additional preconstruction services that will be necessary based on the scope of the project and on the familiarity of the contractor with local street and utility conditions, in addition to the usual excavation and other permit fees.

Reliability and Safety

45-57 The EIR/EIS Project Description explains, under §2.6 "Safety Controls," that the pipe would be "protected from corrosion by a cathodic protection system" (p. 2-25, and pp 5-138-139) required by federal law. The construction procedures section immediately preceding the safety section of the Project Description does not provide the details of this system, nor does the Reliability and Safety discussion in the Environmental Consequences chapter. Would it require deeper excavation along portions of the alignment, and, if so, approximately where and how deep? What other components would be included in the cathodic corrosion protection system? Different depths of construction could have important environmental impacts different from those described in the EIR/EIS; without detailed information about the cathodic protection system proposed, the evaluators could not describe any potential impacts or lack of impacts and reviewers have no opportunity to comment on these potential impacts. Additional components of the proposed project, other than the pipeline, compressor stations, meter stations and valves, may or may not cause environmental impacts but cannot be evaluated if they are not described. What equipment would be associated with the cathodic corrosion protection system, where would it be located and at what intervals would it be located along the pipeline length? How often would the cathodic protection system be monitored (page 2-24 simply says "regularly"; how often is this?)?

45-58 The requirement for a cathodic protection system is, of course, not disputed. However, the Draft EIR/EIS should have explained that the proposed project's cathodic corrosion protection system could affect existing pipelines crossed by or located near the proposed pipeline. Were the Mojave Pipeline's protection system to generate interference currents that would cause corrosion of any San Francisco Hetch Hetchy water supply facility or a San Francisco Water Department water supply pipeline, water supply to up to 2.5 million users could be limited or disrupted. This could be a significant impact. Had the Draft EIR/EIS noted this potential impact, it could also have included appropriate mitigation measures such as insuring that anodes would be connected to both the Mojave pipeline and any existing pipeline being crossed by the proposed project (the project is expected to cross major San Francisco Water Department water supply pipelines of up to 66" at least 8 times in its route from Modesto to Fremont, Palo Alto and San Francisco as noted above) and that each crossing would include a test station permitting regular monitoring of the currents in the system. Rechecks of corrected corrosion problems should occur within six months, rather than within one year as noted on page 2-24. In addition, a mitigation measure to protect any San Francisco Water Department or Hetch Hetchy water supply pipeline coatings during construction and another to provide for use of existing soil for backfill to avoid creation of corrosion cells must be added to Sections 5 and 7. The mitigation measures could be somewhat general, and provide for review and approval by the San Francisco Water Department staff and engineers, but should include an appropriate minimum distance between pipelines, installation of testing equipment

45-57 Comments accepted. See revised section 2.7 for an expanded discussion of cathodic protection.

45-58 Mojave's cathodic protection system would be designed to avoid generating interference currents that would affect the Hetch Hetchy or any other water supply facility or pipeline. Except under unusual circumstances, existing soil would be used for backfill. See the discussion of cathodic protection in new section 2.7.

45-58 to monitor both pipelines, perpetual access to the testing equipment by CCSF staff and cooperative interference testing. We request that appropriate impact discussion and mitigation measures be added to the Draft EIR/EIS. Details about appropriate mitigation that would protect this major water supply system must be worked out with staff of the San Francisco Water Department during the permit process for each pipeline crossing, but the EIR/EIS should certainly provide some general discussion.

45-59 Page 5-142 states that Mojave emergency personnel would not be available for up to 1 - 1 1/2 hours if two incidents were to occur at the same time in the same area. PG&E is able to respond within minutes and so can assist San Francisco emergency personnel. Therefore, Mojave should be required to provide and maintain training programs and the special equipment needed to handle gas pipeline emergencies.

45-60 How will Mojave participate in the state's "one-call" system--USA--to respond when other development or excavation activities are planned in the vicinity of the Mojave natural gas pipeline. In San Francisco's densely-developed urban area no utility provider has exclusive use of any area under a City street.

Page 2-26 discusses abandonment of the proposed pipeline in the far future. San Francisco
has had the experience of having an abandoned gas pipeline explode about one year after
abandonment. Has Mojave had any experience with actual abandonment procedures, and, if
45-61 so, with what success or problems? Is there other experience, by other pipeline operators,
45-62 with the proposed procedure provided for in 49 CFR §192.727? With what successes and
problems? If more advanced procedures were developed 25 to 50 years in the future, would
45-63 Mojave be permitted to use the present, 1995 procedures, or would it be required to employ
whatever procedures were found to be most effective and safe at that time in the future?

45-64 Section 5.11.4 discusses handling of contaminated soil and groundwater encountered during
construction. How would potentially contaminated soil be stored until it has been tested
before use as backfill, or until it could be disposed of if contamination is found? How would
45-65 nearby residents and other members of the public be protected from exposure to potentially
contaminated dust before the nature and concentration of contamination has been
established? Would covering with visqueen at the end of the day be adequate to prevent
45-66 airborne dust from exposing the public to inappropriate levels of contamination while
excavated soils are being tested?

Mitigation

45-67 Many suggested mitigation measures are included in the above comments. In addition,
coordination with the San Francisco Water Department for stream crossings (San Antonio and
Alameda Creeks in the Alameda County San Francisco watershed, for example) would be as
appropriate as recommended measure No. 29 (p. 7-10) which includes coordination with the
Santa Clara Valley Water District for crossing Coyote Creek. Similarly, coordination with
45-68 SFWD staff and Hetch Hetchy staff should be included prior to crossing the various water

45-59 The Mojave Pipeline Northward Expansion is mainly a single pipeline traversing each community it passes through compared to hundreds of miles of gas utility pipelines in each of the same communities, most of which are considerably older and more fragile. The likelihood of an emergency on Mojave compared to the gas utilities in each community is minimal to non-existent. In the event an emergency occurs, Mojave has incorporated into its pipeline system automatic line break valves which do not require anyone in attendance in addition to remote control of the block valves from the Gas Control Center. The actual response time of service personnel in the San Francisco area will be considerably less that the estimated maximum response times of 60 to 90 minutes, more in the range of 20 to 45 minutes. As is stated in the draft EIR/EIS, Mojave will assist and coordinate training of local fire departments. As discussed in section 5.11.3, Mojave would assist in training fire department personnel in cities and counties along the pipeline route in procedures to deal with high-pressure, natural gas pipeline emergencies (see also MPM 99.) Local fire departments would be able to deal with high-pressure gas transmission pipeline emergencies using the same basic fire detection and suppression equipment they use in dealing with the more common emergencies involving their communities' natural gas delivery system.

45-60 Mojave is a member of Underground Service Alert (USA) and actively participates in USA's contractor meetings. Mojave immediately responds to all "one call" notices and clearly marks the location of the pipeline. Mojave has an employee onsite where excavation activities take place in the vicinity of the pipeline to ensure that safe procedures are being followed.

45-61 Mojave has not had any experience with actual abandonment procedures.

45-62 Mojave's proposal for abandonment described in section 2.10 consists of purging the pipeline of natural gas, filling it with nitrogen (an inert gas), and capping the ends. This process is considered a safe method of pipeline abandonment. The issue of pipeline safety is regulated by the DOT (see response to comment 2-17), and, therefore, the requested information should be available from the DOT. Pipeline safety is of concern to virtually every city in the country and generally speaking, DOT updates its requirements when experience indicates that changes are warranted.

45-63 As stated in section 2.9, before Mojave could abandon its facilities, it would need to obtain the necessary authority from the FERC under Section 7(b) of the Natural Gas Act. The FERC would require Mojave to comply with the applicable DOT regulations at that time.

45-64 As discussed in section 5.11.4, Mojave would treat soils suspected of being contaminated in accordance with DTSC requirements.

45-65 We believe that the extensive dust control procedures discussed in section 5.11.4, combined with ARMs 45 and 46 will be adequate to protect the public.

45-66 See response to comment 45-64 and 45-65.

45-67 Mojave has agreed to coordinate the Coyote Creek crossing with the Santa Clara Water District because of special flood control and mitigation projects being constructed in the area. Mojave would coordinate with the San Francisco Water Department on the crossings of San Antonio and Alameda creeks if there are any special projects being constructed or planned in the vicinity during the detailed engineering design phase or during construction.

45-68 Comment noted. As discussed in section 2.4.3, Mojave would coordinate with the San Francisco Water Department and submit plans with adequate time for review.

45-68 supply pipelines transmitting water from Hetch Hetchy to the East Bay and Peninsula distribution areas and reservoirs. While this coordination will occur as part of the permits that will be required in order to cross San Francisco properties, it would be well to note it in the EIR/EIS, as has been done for other water districts.

45-69 The Revegetation Plan shown in Appendix B should be revised to insure that native plant
communities are fully restored. For example, Sections 3.2 and 4.0 establish monitoring
timeframes of 2, 3 and 5 years for various types of plant communities. Based on current
45-70 environmental industry standards, the monitoring periods for herbaceous upland and
wetland/riparian vegetation should not be less than 5 years and for oak woodland should not
be less than 10 years. Also in Section 4.0, native species diversity is designated at "at least
45-71 50% of the diversity originally found in the wetland." This is too low, and could mean failure of
the mitigation measure. A native diversity of no less than 80% would be more in line with
environmental industry standards according to San Francisco Water Department staff. These
points also apply to Section II of Appendix C.

Thank you for the opportunity to review and comment on the Mojave Pipeline Northward Expansion Draft EIR/EIS. The City and County of San Francisco looks forward to reviewing the responses to comments (pursuant to both NEPA requirements to circulate the proposed Final EIS, and CEQA requirements to provide copies of responses at least 10 days prior to proposed EIR certification). If it is decided to recirculate portions of an updated Draft EIR based on the above and other comments, please be sure to send copies of that document to City and County offices, including the Planning Department and the Water Department, for review.

If you have questions about these comments, please call me at 415-558-6381. I will either clarify the comments or provide a contact in the appropriate City department who can provide more detailed information.

Sincerely,

Barbara W. Sahm

Barbara W. Sahm
Environmental Review Officer

cc. Michael Boyle, FERC Environmental Project Manager
Mary Griggs, SLC Environmental Project Manager

45-69 Native plant species would be restored as required by the responsible agency. The FERC staff's Plan (appendix A) would require Mojave to conduct followup inspections and take corrective actions until revegetation is determined to be successful.

45-70 Monitoring would be performed to DFG standards.

45-71 These figures were determined in consultation with DFG and FWS staff.

San Joaquin Valley
Unified Air Pollution Control District

March 27, 1995 C950082

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

California State Lands Commission
1807 13th Street
Sacramento, CA 95814
Attn: Ms. Mary Griggs

Re: Draft EIR/EIS Docket Nos. CP93-258-000 et al, State Clearinghouse No. 94032040, Mojave Pipeline Northward Expansion Project

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the above referenced DEIR/DEIS and offers the following comments:

The Draft EIR/EIS provides an adequate discussion of the air quality impacts constructing a gas pipeline through the San Joaquin Valley. The District concurs with the findings of the DEIR/DEIS that the construction phase of the project will have significant unavoidable impacts on air quality. Any project of this magnitude will have adverse air quality impacts considering current transportation technology, and construction practices. However, since the construction related emissions are temporary, the project would not have a significant long-term impact on the Valley's air quality.

46-1 The approving agencies should be aware that valley fever is a health concern in the San Joaquin Valley and was not discussed in the DEIR/DEIS. Fugitive dust generated during construction activities has the potential to carry valley fever spores. For more information on potential valley fever impacts contact the local county health departments.

46-2 The DEIR/DEIS proposes a number of mitigation measures to reduce air quality impacts. The District is satisfied that all feasible on-site mitigation measures have been included. However, because this project is subject to a federal Clean Air Act

David L. Crow
Executive Director/Air Pollution Control Officer
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Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
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46-1 Thank you for this guidance. See section 5.11.4 which has been revised to include information on Valley Fever.

46-2 Thank you for this guidance. We are preparing a Conformity Determination.

46-2 General Conformity determination, additional off-site mitigation or offsets may be required for pollutants exceeding the diminimus levels in the General Conformity regulation. District staff is available to work with you in complying with this regulation. In addition, you should contact Ms. Terry Parker at the California Air Resources Board at (916)323-6987 for comments on General Conformity findings.

Specific comments on the Draft EIR/EIS:

46-3 Page ES-5: The third paragraph under "Major Impact Conclusions" seems to contradict the conclusion in the first paragraph that air quality impacts would remain significant after mitigation.

46-4 Page ES-12, Table ES-2: Blasting is listed as a impact to Geologic Resources. Blasting could also cause fugitive dust entrainment and should be factored into total PM_{10} emissions for the project. Analysis related to this impact should be included in the air quality section of the EIR/EIS.

46-5 Page 4-134, para. 3: The State of California has attainment designations that are somewhat different than the federal designations. For example, the San Joaquin Valley is designated a serious nonattainment area for ozone under the federal designation and is designated a severe nonattainment area under state law.

46-6 Page 4-134, para. 4: The Bakersfield metropolitan area was designated in attainment of the carbon monoxide state standards in March 1993 and is pending redesignation to attainment of the federal standards.

46-7 Page 5-119: The San Joaquin Valley Air District normally uses tons per year in presenting its threshold for significant impact to match the offset thresholds from the New Source Review Rule (Rule 2201).

46-8 Page 5-123: The San Joaquin Valley Air District recommends mitigation measures and does not require them. The decision to require mitigation will be up to the lead agency. The District has adopted a series of rules to control fugitive dust (Regulation VIII). The rules pertaining to construction are primarily performance based. The mitigation measures listed in the DEIR/DEIS will allow the project to achieve the performance standards required by Regulation VIII.

46-9 Page 5-128, para. 4: The stationary source emissions from the Fomoso Compressor Station must be offset down to the new source review offset threshold (10 tons/year), not to zero.

46-3 Comment accepted. The Executive Summary has been changed to reflect that air quality impact would remain significant in some areas after mitigation.

46-4 The construction contractor does not anticipate the need for blasting on this project; therefore, no associated increase in PM10 emissions is expected.

46-5 Comment accepted. See revised section 4.10.1.1 which has been revised to include the state designation.

46-6 Comment accepted. See revised section 4.10.1.1 which has been revised to reflect the current status.

46-7 Comment accepted. See revised section 5.10.1.1 which also shows tons per year.

46-8 Comment noted. No response required.

46-9 Comment accepted. See revised section 5.10.1.5 which corrects the offset threshold.

46-10 Page 5-147, para. 1: The transportation corridor project is incorrectly identified. There are two proposed corridor projects serving the Fresno metropolitan area. One project would widen State Route 41 to at least 4 lanes for 12 miles from just south of the San Joaquin River north into Madera County. The second project is extends State Route 180 from East Fresno to Highland Avenue. This second project is all in Fresno County.

Thank you for the opportunity to comment on this project. If you have any questions, please call me at 497-1075.

Sincerely,

Dave Mitchell

Dave Mitchell
Senior Environmental Planner

46-10 Comment accepted. See revised section 5.12 in which the two projects have been clarified.

City of Palo Alto
Department of Planning and Community Environment

PALO ALTO
100 YEARS 1894-1994

Planning Division

March 27, 1995

Mr. Michael Boyle
Federal Energy Regulatory Commission
825 North Capitol Street NE, Room 7312
Washington, DC 20426

Dear Mr. Boyle:

SUBJECT: Mojave Northward Expansion Project Environmental
Impact Report (EIR), Environmental Impact Statement (EIS)

This letter forwards comments from the City of Palo Alto on the EIR/EIS prepared for the Mojave Northward Expansion Project. Insufficient information is given for us to fully evaluate the impacts the project may have on local utilities, and pedestrian and vehicular circulation patterns. The project description does not reveal the precise location of pipeline alignments. This is extremely important since Palo Alto owns and operates its own utilities -- water, gas, wastewater, electricity and storm drains.

47-1 The City of Palo Alto has terminated its Transportation Service Agreement with the Mojave Pipeline Operating Company and is not planning to connect to the proposed pipeline at this time. As a result the three new gas metering stations proposed for location in Palo Alto will not be needed at this time.

47-2 The majority of our comments relate to impacts from construction activities and potential conflicts with existing subsurface utility lines. Well in advance of initiating construction, representatives from Mojave will need to meet with staff from our Transportation, Public Works, Utilities, Fire and Planning Departments to work out acceptable construction logistics.

47-3 The scale, and large project area and high number of jurisdictions and agencies involved in the project raise concerns about the ability to monitor compliance with the identified mitigation measures. We request that a specific mitigation monitoring plan be prepared identifying specific individuals and agencies responsible for compliance and copies be provided to all affected agencies and jurisdictions. Local project construction and agency contacts should be identified as well.

SC|A:\MOJAVE.LTR

250 Hamilton Avenue
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Palo Alto, CA 94303
415.329.2441

47-1 Thank you for your letter. Comment noted. Mojave is currently re-negotiating a new Transportation Agreement with the City of Palo Alto, therefore; it would be premature to remove the three new proposed gas metering facilities from the project at this time.

47-2 We will pass this information along to Mojave.

47-3 Thank you for this guidance. A mitigation monitoring plan will be prepared as part of the project.

Portion of Project within Palo Alto/Stanford University

For the purposes of our comments we have divided the portions of the pipeline to be located within Palo Alto and Stanford University into four sections, and have identified known utility lines located in the project area (see Attachment A).

Gas Metering Stations: These stations and feeder lines will not be needed unless
Palo Alto decides to connect to the pipeline at some future time. Though the stations are
47-4 shown graphically along the JPB ROW the precise location of the stations has not been
defined. Further environmental assessment would be necessary before construction of
these facilities. It would be our recommendation that if such stations are needed they
47-5 would be placed underground. These facilities would be subject to design review by the
City's Architectural Review Board, if located above ground. A noise study may also be
47-6 needed to ensure there is adequate noise attenuation for the metering stations and any
backup generators.

Utility Impacts

As noted on Attachment A, numerous City utility lines cross the JPB ROW and are
located within the ROW of Churchill Avenue, El Camino Real, Galvez and Arboretum
Roads. Final construction plans will need to show the size, and location, including
depth, of all underground utilities within the project area, and provide adequate
separation. Representatives of Mojave will need to meet with representatives from the
47-7 City's Utility Department to assure acceptability of final pipeline location and alignment.
As the construction date nears, the City will require that all plans and specifications be
submitted to the City for review. This review will allow the various City Departments
with underground improvements to comment on each individual crossing to insure
compliance with our respective Standard Specifications.

Transportation Impacts

Pipeline will cross four existing grade separations at:

- San Antonio Road
- Oregon Expressway/Page Mill Road (Santa Clara County ROW)
- Embarcadero Road
- University Avenue

Pipeline will cross one existing pedestrian/bicycle grade separation and four new pedestrian/bicycle separations proposed for consideration as part of an update of Palo Alto Comprehensive Plan now in process:

- East Charleston Road
- East Meadow Drive

47-4 Comment noted. No change required.

47-5 Underground meter stations are not feasible. Underground meter stations are cost prohibitive and operationally impractical.

47-6 We do not believe a noise study would be necessary. None of the delivery meter stations for the Northward Expansion will have backup generators. Mojave uses battery back up at all Northward Expansion meter stations.

47-7 We will pass this information along to Mojave. Also, see our new section 2.4.3 on construction procedures for utility crossings. Mojave would coordinate with the City's Utility Department and submit plans with adequate time for review. This permit has been added to table 1.4-1

47-7 - California Avenue (existing)
- Churchill Avenue
- Palo Alto Avenue

Construction activities related to installation of the pipeline will affect circulation for pedestrians, autos and bicyclists. Depending on the timing of project construction there is the potential for conflicts between other construction projects proposed along the pipeline alignment. For example, a City pedestrian/bicycle bridge is currently being designed and will cross San Francisquito Creek near the JPB ROW. The City also has a Public Works Pavement Management System for street resurfacing. The Public Works Department needs to be contacted in order to coordinate the City's resurfacing projects. If conflicts are unavoidable, Mojave may have to resurface the street(s) in question.

Prior to completing preliminary design plans, representatives from Mojave will need to meet with City, County and State staff to assure their are no conflicts with other projects, and to develop an acceptable construction logistics plan addressing at a minimum: emergency access, parking, truck routes and staging; materials storage and provision of auto, bicycle and pedestrian traffic adjacent to the construction area. All truck routes must conform with the City of Palo Alto's Trucks and Truck Route Ordinance Chapter 10.48 and the City's Truck Route Map (available from the Transportation Division of the Planning and Community Environment Department) which outlines truck routes available throughout the City of Palo Alto.

For construction occurring on Churchill Avenue, Mojave will need to obtain a Permit for Construction in a Public Street from Palo Alto Public Works Engineering Division (Sec. 12.08.010). An Encroachment Permit may also be needed. Mojave should contact the City's Public Works Department to discuss the requirements for such permits.

The portion of the proposed work within the State of California and County of Santa Clara ROW will require permits from these agencies.

Creek Impacts

The pipeline will cross four creeks. Adobe, Barron and Matadero Creeks are channelized in the project area but remain naturalized farther upstream. San Francisquito Creek is in a natural state and represents common borders between City, County and Water District boundaries. Table 4.3.2-1 on p-4-48 should be corrected to reflect that the pipeline will cross Barron Creek. 47-8

As the last unchannelized creek in the City, preservation and enhancement of San Francisquito Creek and the important riparian and wildlife habitat it provides are a high priority for the City. The impacts of construction on all the City's creeks are a concern. The document indicates that construction methods for crossing of all creeks will be open trenching. This would be unacceptable to the City. To minimize 47-9

47-8 Comment accepted. See change to table 4.3.2-1.

47-9 Mojave will agree to either jack and bore or horizontally drill the San Francisquito Creek. See change to table 4.3.2-1.

construction impacts on the creeks a traditional jack and bore technique should be used
instead. If, due to the depth of excavation needed, Mojave should consider hanging the
47-10 gas line from the railroad bridge over San Francisquito Creek, Palo Alto would be
concerned about potential visual and safety impacts.

For all creek crossings Mojave will need to coordinate with the Santa Clara Valley Water District.

Vegetation and Wildlife Impacts

47-11 The current proposal calls for installation of the pipeline within existing road and railway ROWs. This should help to minimize impacts on area trees. However, excavation may impact root systems of mature trees bordering the ROWs. Impacts on trees could be greater if the pipeline is realigned to be located outside of the roadways. A more detailed analysis of impacts on area trees and specific tree protection plan prepared by a licensed arborist should be developed prior to initiation of construction activities. Please be aware that a historic Palo Alto redwood tree "El Palo Alto" is located by the railroad bridge crossing San Francisquito Creek. The tree is significant in that the spanish explorer Don Gaspar de Portola and his men camped under this tree when they "discovered" the area in November 1769. The tree is located within the City's El Camino Park. Work within the park may need a Park Improvement Ordinance from the City.

Research done for preparation of the City's Comprehensive Plan has identified documented locations of two sensitive species near portions of San Francisquito Creek west of the project crossing. These are the California Tiger Salamander and the California Red-legged Frog. The presence of these species further emphasizes the need to minimize construction impacts on both San Francisquito Creek and the riparian area bordering the Creek.

Archaeological/Cultural Impacts

Areas of extreme archaeological sensitivity are located in the area bordering
San Francisquito Creek and Adobe Creek. The entire project area is in an area of
moderate sensitivity. It is stated on page 5-118 that the cultural resource inventories
were incomplete and had not been reviewed by appropriate agencies, indicating that the
Draft EIR is incomplete. The mitigations in this section are confusing, mainly quoting
compliance with regulations identified by acronym. We recommend that the Final
47-12 EIR/EIS identify the specific mitigations to be implemented should a historic or cultural
resource be discovered during construction of the new pipeline. Such mitigation should
include notifying qualified local archaeologists.

See also comment about the historic tree "El Palo Alto" noted above.

47-10 It is expected that further site-specific mitigation measures would be required by other permitting agencies. Any state or local permits or approvals with requirements that would be in conflict with the FERC Certificate or that would not allow Mojave to meet their obligations under the FERC Certificate would be preempted by its Federal status.

47-11 Comment noted. Minor route variations are envisioned to accommodate special biological, cultural, or other resource conflicts as identified in the final EIR/EIS. Mojave is aware of the location and significance of the historic Palo Alto redwood tree "El Palo Alto". Impacts to this tree will be avoided by either construction method mentioned in response to comment 47-9 for the San Francisquito Creek.

47-12 The FERC staff's recommended condition is sufficient to ensure that the FERC complies with its responsibilities under Section 106 of the National Historic Preservation Act (NHPA).

Geology

47-13 The portions of the pipeline located within the Stanford Campus along West Campus Drive fall within the Stanford Fault Zone. The proposed gas metering station at the terminus of the line is located near an identified fault trace. Many Stanford University buildings suffered a substantial amount of damage in the 1989 Loma Prieta Earthquake. Construction methods will need to take the presence of these closed fault areas into account. (Source Geology and Seismic Technical Background Report Palo Alto Comprehensive Plan Update prepared for the City under the direction of Brady and Associates environmental consultants).

Air Quality

47-14 Dust control mitigation measures should require that spillage resulting from excavation
and hauling operations along or across any public or private property to be removed
immediately and paid for by the contractor, and for dust nuisances occurring either inside
47-15 or outside the ROW to be controlled at the contractor's expense with the City's Public
Works Engineering Division given the ability to request watering of earth surfaces if
deemed necessary.

Water Quality

47-16 The JPB ROW passes through an area of known groundwater contamination (California
Avenue, Olive, Emerson, 640 Page Mill Rd, 601 California Ave/395 Page Mill Road
Study Area). Construction techniques need to take into account that contaminated
groundwater may be encountered and the proposed Health and Safety Plan for
construction activities implemented. The Final EIR/EIS should identify specific
47-17 mitigation measures for treatment of contaminated groundwater that is encountered as
well as contaminated soils. Mitigation measures for contaminated soils should account
for possible contamination of the soils with chlorinated hydrocarbons as well as
petroleum.

Water Quality mitigation measures should include a provision to require the contractors to incorporate best management practices (BMP's) for stormwater pollution prevention in all construction operations, in conformance with the Santa Clara Valley Nonpoint Source Pollution Control Program. It is unlawful to discharge any construction debris (soil, asphalt, sawcut slurry, paint, chemicals, etc.) or other waste materials into gutters or storm drains. (Federal Clean Water Act).

Noise

47-18 The document indicates that impacts from noise should not be significant. Many residential properties border the JPB ROW and are located along Churchill Avenue. We request that noise mitigation measures include the provision that construction activities

47-13 The safety concerns relating to pipeline construction within a region that is potentially seismically active are addressed in section 5.1.2.2. We believe the unnamed fault at MP 49 is part of the Stanford Fault Zone.

47-14 We will pass this information along to Mojave. See response to comment 47-10.

47-15 Thank you for your comment. Mojave proposes to water the right-of-way for dust suppression as discussed in section 5.10.1.3.

47-16 As noted in tables 4.3.1-1 and 4.3.1-3, Mojave is aware that it could encounter contaminated shallow groundwater in the Palo Alto area. Section 5.11.4 discusses impact associated with contamination near the right-of-way.

47-17 MPM 23 already requires that Mojave prepare a Stormwater Pollution Prevention Plan that would address these concerns.

47-18 As stipulated in MPM 66, Mojave would limit construction to daylight hours. See response to comment 47-10.

47-18 within Palo Alto be subject to compliance with Palo Alto's Noise Ordinance, Chapter 9:10 PAMC, which establishes permissible noise levels and requires that construction activities be limited to the following time frames:

8:00 AM to 8:00 PM	Monday through Friday
9:00 AM to 8:00 PM	Saturday
10:00 AM to 6:00 PM	Sunday

See also comment on noise under section on gas metering stations.

Safety

The Final EIR/EIS should provide more detailed information as to Mojave's readiness to respond in the event of an accidental release of gas from the system. A response time 47-19 of 60-90 minutes was identified as a worst case response time in the case of multiple emergencies. What would be the typical response time with a single emergency? Where will the emergency personnel be located. Will they be able to deal with multiple releases in the event of an earthquake (e.g. if access roads are closed?) Where will the emergency shut off valves be located? The City also requests that Mojave contact the 47-20 City if an accidental pipeline release occurs within five miles of the City, so we will better know how it will affect our operations.

Thank you for the opportunity to review and comment on this document.

Sincerely,

Sarah Cheney

SARAH CHENEY
Senior Planner

Attachment: A. Description of Portion of Project in Palo Alto and Affected Utility Lines

cc: Mary Griggs, California State Lands Commission, 1807 13th Street
Sacramento, CA 95814

47-19 In addition to service facilities located in several communities along the pipeline route, Mojave service personnel would live in these communities and would be available on a 24-hour/day basis to respond to emergencies. Emergency repair contractors in the communities along the pipeline route would be available for emergency repair and restoration.

47-20 Mojave would notify the City of Palo Alto if there were an accidental release in or near the City.

STATE OF CALIFORNIA PETE WILSON, *Governor*

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
THIRTY VAN NESS AVENUE, SUITE 2011
SAN FRANCISCO, CALIFORNIA 94102-6080
PHONE: (415) 557-3686

March 27, 1995

Ms. Mary Griggs
California State Lands Commission
1807-13th Street
Sacramento, California 95814

SUBJECT: Draft Environmental Impact Report/Statement for Mojave Northward Expansion Project; SCH No. 94032040, FERC Docket Nos. CP93-258-000, et al., EIR Inquiry File MC.MC.7415.23

Dear Ms. Griggs,

I am writing in regards to the *Draft Environmental Impact Report/Statement for the Mojave Pipeline Northward Expansion Project* (DEIR/S) prepared by the Federal Energy Regulatory Commission and the California State Lands Commission and issued in February, 1995. The proposed project involves the construction and operation of certain pipeline and compression facilities that will extend Mojave Pipeline Company's existing natural gas transmission system into Central and Northern California. The DEIR/S analyzes the impacts of the project, proposes project alternatives, and discusses mitigation measures. The staff of the San Francisco Bay Conservation and Development Commission (Commission) reviewed the DEIR/S, and is submitting comments regarding the document based on the McAteer-Petris Act and the Commission's *San Francisco Bay Plan* (*Bay Plan*).

Commission Jurisdiction

As previously mentioned in our letter dated May 20, 1994, many of the Mojave Pipeline project's activities may be proposed for sites within the Commission's jurisdiction. The Commission's jurisdiction includes all areas that are subject to tidal action up to the mean high tide line including all sloughs, marshlands lying between the mean high tide and five feet above mean sea level, tidelands, and submerged lands. A shoreline band consisting of all areas 100 feet inland and parallel to the mean high tide line are also within Commission jurisdiction. The Commission also has jurisdiction over the Suisun Marsh and other managed wetlands adjacent to the Bay, salt ponds, and "certain waterways".

Commission permits are required for projects proposed within its area of jurisdiction; the issuance of such permits occurs if the Commission finds activities to be consistent with the McAteer-Petris Act and the policies and findings of the *Bay Plan*. In addition to permits needed under the Commission's state authority, federal activities that affect Commission jurisdiction are subject to consistency review. Federal activities must comply with the Commission's federally approved coastal management program for the Bay, pursuant to the Coastal Zone Management Act.

Section 5.3.3.2, *Coastal Zone Areas*, (pg.5-28) of the DEIR/S states correctly that Commission permits may be required for specific segments of the proposed Mojave Pipeline. The segments of the proposed Mojave Pipeline that may require Commission approval include portions of the North Mainline segment, the Oakland segment, the Palo Alto segment, the Hunters Point segment, and the entire Freemont segment.

Despite this information, Commission staff remains uncertain regarding the relation of
proposed pipeline activities to the mean high tide line, and thus where permits would be required.
48-1 For purposes of clarification, the Final EIR/S should contain a more detailed description of the
project sites and a map of the Bay shoreline that shows pipeline construction in relation to the mean
high tide line. If the proposed pipeline construction is located within the Commission's
48-2 jurisdiction, the Final EIR/S should also discuss the activities' consistency with Commission law
and policies; law and policies most relevant to the proposed pipeline project include those policies
associated with Bay "fill", public access, fish and wildlife, and advisory policies on diked historic
baylands. Bay Area alternatives should also be examined for their consistency with Commission
policies.

Bay Fill Policies

Pipeline, riprap, or any related structures proposed to be placed over or in the Bay and its tidal marshes would be considered Bay "fill" under the Commission's law and policies. To approve the use of fill the Commission must find that the fill: (1) is for a water-oriented use as defined in Section 6605 of the Government Code; (2) is the minimum neccessary; and (3) will not adversely affect fish and wildlife resources. To be granted approval the project may not have an alternative upland location. In addition, the project's public benefits must outweigh its detriments and projects must provide maximum feasible public access consistent with the impact of the project. Finally, Commission approval requires that the applicant show proof of title to the property it intends to fill.

Any proposed fill must also meet the requirements of the*Bay Plan* policies to protect marshes and mudflats. These policies state, in part: (1) maintenance of marshes and mudflats is important in both the conservation of fish and wildlife and the mitigation of air and water pollution; (2) proposed fill projects should have minimal effects upon marshes and mudflats; (3) former marshes should be restored, new marshes should be created, and the quality of existing marshes should be improved in an effort to offset marsh losses that may occur due to necessary fill

48-3 The Final EIR/S should contain a description of any fill that might be used in the construction
of proposed pipeline, meter sites, or other associated pipeline facilities within Commission
jurisdiction. The proposed North Mainline, Oakland, Palo Alto, and alternative Tracy to Martinez
segments appear to be in close proximity to tidal marshes. The Final EIR/S should describe any
48-4 use of fill that may be proposed for these sites and a discussion of how the use of fill meets the
requirements stated within the Commission's *Bay Plan* policies.

Bay Plan Policies on Public Access

Bay Plan policies on public access emphasize the need to provide maximum feasible public access to the Bay. Often, provision of public access to the Bay is a condition of Commission approval for a new development. Typically this access must be permanently guaranteed, consistent with the project and the physical environment, include protection of natural resources, and provide for the public's safety and convenience. The public access required in association with a new project may be provided through point and/or linear access to the Bay through trails or walkways that connect to public roads and parking. The public access should be well marked and maintained on a regular basis.

48-5 We request that the Final EIR/S should identify segments of the proposed pipeline that may affect existing public access, and identify any new public access proposed as part of the project. For instance, the proposed Oakland and Hunters Point segments of the pipeline may disrupt sites containing designated public access areas.

48-1 Thank you for your letter. Mojave would be responsible for consulting with BCDC to determine exactly which parts of the project are within BCDC's jurisdiction.

48-2 We will require Mojave to file a statement from the BCDC that the project is consistent with the California Coastal Zone Management Plan prior to construction. See ARM 22.

48-3 Native material is used as fill wherever possible. However, when the pipeline trench runs through rock or other conditions which could damage the pipe or coating, the pipeline contractor is required to furnish and install 4 inches of dirt or sand free of any foreign objects for continuous bedding under the pipeline.

48-4 See responses to comments 48-2 and 48-3.

48-5 Comment noted. The Oakland segment has been dropped by Mojave. The only impact on public access along the Hunters Point Segment would be temporary. No new public access is proposed.

Bay Plan Policies on Fish and Wildlife

The proposed project should be in accordance with *Bay Plan* policies on fish and wildlife. These policies include the consideration of: (1) the need to ensure fish and wildlife protection by maintaining water volume and surface area in the Bay, as well as fresh waterflow into the Bay; (2) habitats needed to prevent extinction or to maintain population numbers of any species, which also provide public benefits, should be protected.

Segments cited in the DEIR/S as within Commission jurisdiction are located near important
habitats for wildlife. For instance, the proposed Oakland segment is situated near the San Leandro
Bay-an important area for wildlife conservation. The DEIR/S's Section 4.5, *Wildlife and Aquatic*
48-6 *Resources*, (pg. 4-58 to 4.69) and Appendix C, *FERC Staff's Wetland and Waterbody*
Construction and Mitigation Procedures, fail to identify natural areas that may be affected within
Commission jurisdiction nor do they cite which, if any, of the mitigation measures will be required
on sites surrounding the Bay. The Final EIR/S should identify segments within Commission
48-7 jurisdiction that may encroach upon habitat, note any expected effects on nearby wildlife habitat,
and identify appropriate mitigation measures.

Advisory Policies on Diked Historic Baylands

The diked historic baylands are those areas that were formerly part of the Bay but have been diked off from tidal action and have not been filled. It is important to note that diked historic baylands represent one of the most important and last remaining opportunities for significant weltand restoration in the San Francisco Bay estuary. Cumulatively, the incremental development of diked historic baylands represents a significant and irreplaceable loss to the Bay ecosystem. While the Commission does not have regulatory authority over diked historic baylands, it believes every effort should be made to preserve and protect these areas because of their importance to the San Francisco Bay ecosystem. The Commission uses the advisory policies to provide comments to the U.S. Army Corps of Engineers and local governments for projects occurring in diked historic baylands. All of the pipeline segments noted in the DEIR/S as within Commission jurisdiction, possibly excluding the proposed Freemont segment, are located in close proximity to diked historic baylands.

The Final EIR/S should identify any portion of each proposed segment that may occur in these areas and discuss the consistency of these activities with the Commission's diked historic baylands policies. The Final EIR/S should also clearly identify any alternative segments that would be located on diked historic baylands. For your convenience, I have attached a copy of the Commission's findings and policies for diked historic baylands.

48-6 The EIR/EIS identifies all natural areas that could be affected by the proposed project regardless of jurisdiction. We believe that the mitigation measures identified would minimize the impact on wetlands and other natural resources. We acknowledge that further site-specific mitigation measures may be required by other permitting agencies.

48-7 See response to comment 48-1.

Conclusion

I would like to thank you for giving Commission staff the opportunity to comment on the DEIR/S. We look forward to reviewing the Final EIR/S and any other related documents. In the interim, please keep us informed of any other issues regarding the project. If you have any questions, please feel free to contact me.

Sincerely,

Andrea M. Gaut

ANDREA M. GAUT
Dredging Program Staff

cc: Nadel Gayou, Resources Agency
Michael Boyle, Federal Energy Regulatory Commission

State of California

Memorandum

To : Ms. Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, California 95814

Date : March 24, 1995

From : Department of Fish and Game

Subject : Mojave Pipeline Northward Expansion Project Draft Environmental Impact Report/ Environmental Impact Statement (DEIR/EIS), SCH# 94032040, February 1995

The Department of Fish and Game (DFG) has reviewed the above document. Over the last two years DFG staff have met with the project proponent, the biological consultant to the proponent, and various agencies regarding our suggestions for the document. Additionally, we have provided written comment on the administrative draft of the DEIR/EIS. We greatly appreciate your staff's conscientious facilitation of this process.

The proposed project would include approximately 681 miles of pipeline, 55 to 58 meter stations, three new compressor stations, and modifications to the existing Topock Compressor Station. Mojave proposes to bury its pipeline within or adjacent to Southern Pacific railroad right-of-way for most of the route between Bakersfield and Tracy and within existing roads for most of the lateral segments.

In general, the DEIR/EIS is well written, and we are pleased by how well our concerns and recommendations, made in informal consultations, have been addressed. We have the following comments and recommendations:

The potential for impacts to sensitive biological resources is significant in the northern portion of the pipeline, specifically in Contra Costa and Alameda counties. Several alternative routes have been identified to reduce potential adverse effects from this portion of the pipeline. We agree with the State Lands Commission (SLC) finding (Page ES-4) that the Tracy to Antioch Southern Pacific Railroad Alternative Route would result in fewer impacts to sensitive biological resources than the corresponding segment of the proposed route, and we recommend its adoption.

TABLE ES-2
Summary of Impact and Mitigation Measures

49-1 On page ES-14, Water Resources, we recommend adding a sentence to paragraph 1, under mitigation measures for aquatic habitats which says: "Comply with conditions and measures in the DFG Stream Alteration Agreement(s)."

49-1 Thank you for your comments.

49-2 On page ES-17, Wildlife and Aquatic Resources, under the third mitigation measure addressing effects on feeding and breeding of fish, please add a sentence that says: "Comply with conditions and measures in the DFG Stream Alteration Agreement(s)."

1.4 PERMIT REQUIREMENTS

49-3 We recommend that the section on Permit Requirements, page 1-8, include a second paragraph stating the following: "DFG will use the EIR/EIS in preparing Stream Alteration Agreement(s)."

2.4 CONSTRUCTION PROCEDURES
2.4.2 Construction Procedures for Road, Rail, Waterbody, and Wetland Crossings

49-4 On page 2-19, in paragraph 2, the second sentence describes exceptions to the proposed methods for pipeline construction through minor and intermittent streams. In addition to the two exceptions described, add a third exception ", and (3) where the DFG Stream Alteration Agreement recommends other specific construction techniques."

49-5 The last sentence in the same paragraph states excavated material will be stockpiled at least ten feet from the stream in temporary staging areas. The excavated materials should be stockpiled at least 10 feet from streambanks and farther back if necessary to prevent the soil from entering back into the water prior to redeposition by equipment.

49-6 This same suggestion applies to the end of paragraph 3 at the bottom of page 2-19.

49-7 On page 2-22, paragraph 1, please capitalize "Stream Alteration Agreements" in the second sentence.

4.3 WATER RESOURCES
4.3.2 Surface Water

49-8 On page 4-38, the last sentence in the first paragraph states: "Smaller streams are not addressed by the state water quality assessments." The text should be restated to say, "Although smaller streams are not addressed by state water quality assessments, they may be addressed and conditions to protect associated resources prescribed in DFG Stream Alteration Agreements."

49-2 Comment accepted. See change to table ES-2.

49-3 Comment accepted. See change to section 1.4.

49-4 Comment accepted. See change to section 2.4.2.

49-5 Comment noted. This performance standard is stipulated in the Procedures in Appendix C, section V.B.4.b. Mojave has agreed to the Procedures.

49-6 The primary benefit of the setback is preservation of riparian vegetation. The vegetative barrier will, among other things, act as a sediment filter screen. No change is required.

49-7 Comment accepted. See change to section 2.4.2.

49-8 Comment accepted. See change to section 4.3.2.

49-9 On page 4-43, figure 4.3.2-1 illustrates a concern regarding characterization of streams. One criterion used is presence or absence of a fishery. DFG is concerned with protection of all aquatic resources related to streams, not just fish that contribute to a fishery. We recommend the figure be revised to include a column for aquatic resources including, but not limited to, riparian habitat, invertebrates, and amphibians.

49-10 This same figure, under the Sensitive Crossing category, lumps sensitive resources and vernal pools with Reclamation Board jurisdictional waters. There is not necessarily a correlation between sensitive resources and a Reclamation Board jurisdictional water. A Reclamation Board jurisdictional water simply means the project sponsor is required to get an encroachment permit from the Board. We suggest dropping the Reclamation Board designation, or creating a new category for permits/agreements required for each crossing and list Reclamation Board, DFG, SLC, etc., for each crossing.

49-11 Finally, under this same Figure 4.3.2-1, in footnote c/, the last sentence following the semicolon should read, "these methods are subject to change on the basis of the final engineering studies and/or conditions prescribed in DFG Stream Alteration Agreements."

4.4 VEGETATION
Wetlands

On page 4-52, it is stated that Mojave has not yet conducted field delineations of the Federal and State jurisdictional wetlands. The wetlands crossed by the proposed route were initially identified using U.S. Fish and Wildlife Service (FWS) National Wetland Inventory maps. For this reason acreage calculations provided in the text may not be accurate. It is the policy of this Department that a project should cause no net loss of wetland acreage or wetland habitat value. Any impacts to wetlands require some form of mitigation. After the U.S. Army Corps of Engineers verifies the extent of wetlands impacted by the project, we will provide guidance regarding the amount of compensation area required for impacts.

49-12 On page 4-55, we appreciate the first paragraph, and we have two comments. We suggest it be placed under section 4.3.2, Surface Water, because California Fish and Game Code Sections 1601 and 1603 do not generally apply to wetlands, per se. They apply to streams, lakes, and rivers. For wetlands, it would be more appropriate to apply DFG Wetlands Policy language. Secondly, we recommend that the last sentence in the
49-13 paragraph be modified to include "permanent" as well as intermittent flows of water. The sentence currently implies that the code sections only apply to intermittent waters.

49-9 Comment noted. The fisheries column was added to table 4.3.2-1 only as an additional descriptor and was not meant to imply that fisheries were the only aquatic resource requiring mitigation. Other aquatic resources including riparian habitat, invertebrates, and amphibians including special status species are adequately characterized in sections 4.4 and 4.5. The fishery column is illustrative of the type of waterbody and provides information needed for the Wetland and Waterbody Construction and Mitigation Procedures in appendix C. We believe the table adequately characterizes the stream crossings.

49-10 Comment noted. The Reclamation Board designation is noted under the heading Sensitive Crossing to indicate that flood control restrictions are in place for that waterbody crossing.

49-11 Comment accepted. See change to table 4.3.2-1.

49-12 Comment noted. We acknowledge that California Fish and Game Code Sections 1601 and 1603 do not apply to wetlands per se but that wetlands could be components of rivers, streams, or lakes that are jurisdictional to Section 1601. See revised sections 4.3.2 and 4.4.

49-13 Comments accepted. The paragraph was changed and moved to section 4.3.2.

4.5 WILDLIFE AND AQUATIC RESOURCES
4.5.1.2 Aquatic Resources

49-14 Please add the following sentence at the end of the paragraph: "In addition, though the dry washes do not support aquatic resources, most of them do flow (when conveying water) to "dry" lakes which may contain up to five different species of freshwater shrimp that depend on this water to complete their life cycle."

49-14 Comment accepted. See change to section 4.1.5.2.

4.5.2.1 Wildlife
Riparian Herbaceous Communities

49-15 Either here or elsewhere in the document (Section 4.4.1, Mojave Desert), the report should include , as a habitat type, Desert Riparian Communities. Desert riparian communities exist in and adjacent to the desert washes and include such species as Desert willow (Calypsos liners), Ironwood (Ulna tacite), Arroyo willow (Cellos lasiolepis), Mesquite (Prosopis spp.), palo verde (Cericidium spp.), and others. The desert wash riparian species should be avoided whenever possible since they are long-lived and difficult to replace or transplant.

49-15 Comment accepted. See changes to section 4.4.1.

5.3 WATER RESOURCES
5.3.3.1 General Impact and Mitigation

49-16 On page 5-22, in the last paragraph, we appreciate the mention of Stream Alteration Agreements. We recommend including the same reference on page 5-23, and specifically listing "Complying with DFG Stream Alteration Agreement Conditions" after bullet 4, which discusses 404 nationwide compliance.

49-16 Comment noted. The list of bullets summarizes the measures contained in the FERC staff's procedures. As indicated in section 5.3.3.1, Mojave would obtain Stream Alteration Agreements from the DFG; therefore, an ARM is not required. In addition, the FERC Procedures require that the applicant apply for state-issued waterbody crossing permits and obtain individual or generic Section 401 water quality certifications or waivers. This specific requirement has been added to the summary of Procedures in section 5.3.3.1 and the MPMs in section 7.5.2.1.

5.4 VEGETATION
5.4.2 General Impact and Mitigation

49-17 In Section 5.4, general impacts to and mitigation for biological resources are described. It is stated that Project Revegetation Requirements (Appendix B) will be followed to reduce impacts on vegetation. On page 5-31 additional revegetation methods proposed by the Federal Energy Regulatory Commission (FERC) and SLC are listed. We support the recommended additional revegetation methods and request that monitoring studies conducted to determine the success of revegetation efforts be extended to 3 years for herbaceous vegetation, 5 years for riparian habitats and wetlands, and 10 years for oaks (every other year after the fifth year) or until the success criteria identified in specific mitigation plans are met. This should also be stated on pages ES-16 and B-20.

49-17 Comment noted. Section 5.4.2 of the EIR/EIS and section 4.0 of the Project Revegetation Requirements (appendix B) have been revised to be consistent with appendix A and to indicate that monitoring will be required for at least 2, 3, and 5 years or until revegetation is judged successful.

49-18 When riparian/wetland vegetation is lost, DFG recommends an acreage replacement
ratio of 3:1. Tree replacement must be adequate to result in surviving densities equal to
existing, undisturbed reference sites. For understory vegetation, we generally require a 1:1
49-19 replacement ratio by area. A comprehensive revegetation plan should be developed
49-20 subject to the approval of DFG prior to project commencement. Additionally, the
vegetation should be maintained with a 90 percent success rate at the end of five years.
Each year an annual report should be sent to the DFG which outlines vegetative growth
and overall success including proposals to replace dead or diseased plants.

49-21 The revegetation plan should include a list of plant species to be removed. Trees should be quantified and listed in diameter at breast height (dbh). Understory should be listed in square footage. The plan should identify the proposed mitigation site(s), evaluate site suitability, and specify numbers and density of plant species to be used for revegetation and how the vegetation is to be maintained.

49-22 The plan should contain maintenance schedules and provisions for the replacement of non-successful vegetation. A five-year monitoring program should be included in the plan to evaluate the performance of the mitigation and identify remedial measures if deficiencies are identified.

5.4.3.3 Coast Ranges - San Francisco Bay Area

49-23 Page 5-40 documents that 14 acres of alkali lowlands in the San Francisco Bay area
would be impacted by the project. We are opposed to any impacts to this sensitive
community, and therefore recommend complete avoidance. We do not concur with the
49-24 finding that impacts to it would be short term. If impacts to this habitat are unavoidable
Department of Fish and Game, Region 3 Environmental Services staff should be contacted
to determine mitigation requirements that are in addition to those proposed on page 5-32.

49-25 Compensation should be required for any temporary impacts to coastal brackish marshes within the San Francisco Bay area. Once the impacts have been determined, Region 3 Environmental Services staff should be contacted to determine case-by-case requirements.

5.5 WILDLIFE AND AQUATIC RESOURCES
5.5.2.2 Aquatic Resources

49-26 On page 5-46, in the second paragraph, we recommend revising the sentence to read: ...Mojave would minimize impact by using the FERC report... and DFG Stream

49-18 **[SEE BELOW]**

49-19 **[SEE BELOW]**

49-20 **[49-18/19/20]** Because the route has been designed to avoid all known significant riparian woodlands by boring underneath them and the permanently maintained right-of-way in woody areas will only be 10 feet wide, less than 2 acres of riparian woodlands through the Central Valley and Coast Ranges along the entire route could be permanently affected by the project. Field surveys have indicated that the majority of the areas affected are either highly degraded or have little riparian vegetation naturally For the riparian woodland areas that might be temporarily affected during construction, the Project Revegetation Requirements (appendix B) state that riparian overstory vegetation will be replaced onsite at a ratio of 3:1 with the intent of full replacement of individual plants (i.e., 100 percent) and that detailed restoration plans will be developed for each of the stream crossings during the permitting process with the USACE and DFG. Additionally, the FERC staff's Procedures (appendix C) require that the applicant restore the temporary right-of-way through all forested wetlands to its preconstruction state and consult with the appropriate state agency to determine the density for planting native trees and shrubs. To address the permanent loss of less than 2 acres total of riparian woodland vegetation, we have revised sections 5.4.3.2, 5.4.3.3, and ARM 26 in 7.5.1.1 to indicate that offsite compensation would be required at a ratio of 3:1. Temporary impacts would require offsite compensation at a lesser ratio as determined on a case-by-case basis depending upon the density and quality of each riparian area affected.

49-21 The Project Revegetation Requirements state that overstory vegetation must be replaced in the same ratio of species as that removed from the right-of-way, which would require that an inventory of vegetation removed be maintained as indicated in the comment. The detailed restoration plan for each crossing must be developed in consultation with the DFG prior to construction (see ARM 26).

49-22 We believe that the maintenance and monitoring requirements outlined in section 4.0 of the Project Revegetation Requirements adequately address the replacement of nonsuccessful vegetation. See response to comment 49-17 regarding the duration of monitoring.

49-23 We recommend the adoption of the Tracy to Antioch Railroad Alternative in lieu of part of the North Mainline. Construction on this alternative would avoid the 14 acres of alkali lowlands.

49-24 Comment accepted. See change to section 5.4.3.3 and response to comment 49-23.

49-25 Comment noted. Recalculation of the number of acres of coastal brackish marsh that would be affected has reduced the amount of area for which compensation would be required. See changes to table 5.4.3.3-1. The restoration required to mitigate the temporary impact on coastal brackish marshes would be determined subsequent to the wetlands delineation on the basis of the acreage and quality of wetlands affected. Table 5.4.3.3-1 includes acreages of disturbed and highly degraded areas that may not be functional wetlands; therefore, the actual acreage affected would be less. Additionally, as per the FERC staff's Procedures in appendix C, Mojave would be required to consult with the appropriate state agency to develop plans for active revegetation of wetlands affected by construction. With implementation of the Procedures and our recommended route alternatives, the project would not likely result in the permanent loss of wetlands. However, in the unlikely event that wetlands would be permanently affected, offsite compensation would be required at a ratio of 1:1 consistent with the DFG's "no net loss policy." Temporary impacts would require offsite compensation at a lesser ratio as determined on a case-by-case basis depending upon the density and quality of each riparian area affected.

(See next page for response to comment 49-26.)

49-26 Alteration Agreement conditions, in addition to other mitigation measures described in section 5.5.3.

5.6 SPECIAL STATUS SPECIES

5.6.2 General Impact and Mitigation

On page 5-51, general mitigation measures are identified to address potential impacts to terrestrial species. Please note that all survey results from pre-construction surveys should be provided to DFG as well as FWS.

5.6.3.1 Mojave Desert

49-27 On page 5-56, please insert the following bullets before the first existing bullet:

"• The number of burrowing owl pairs or unpaired resident owls present within the work area shall be determined by survey prior to the breeding season.

49-28 • Arrangements with the landowner where owls are present shall be made that provide either; 1) temporary construction of artificial burrows off of the work space during the year of construction and restoration of burrows within the right-of-way after construction; or 2) where the landowner will not permit construction of artificial burrows, permanent offsite mitigation at the rate of 6.5 acres per pair or unpaired adult with appropriate burrow construction shall be required as per Appendix D–Staff Report on Burrowing Owl Mitigation. At least two burrows shall be provided per pair or unpaired adult owls."

49-29 Please change the last bullet to :

"• The construction right-of-way will be monitored to prevent any burrows from being constructed or re-inhabited. . . "

49-30 In Table 5.6.3-1 on page 5-80, burrowing owl mitigation should be made consistent with the above changes.

Mojave Eriophyllum

49-31 On page 5-59, mitigation for this species is referenced to section 5.6.3.2, for Central Valley special status plant species. Bullet 6, on page 5-67, refers to multi-year monitoring to verify successful implant mitigation. A more specific time frame should be stated. We recommend a minimum of five years as a monitoring period.

49-26 Comment accepted. See change to section 5.5.2.2.

49-27 Comment accepted. See changes to section 5.6.3.1.

49-28 Comment accepted. See changes to section 5.6.3.1.

49-29 Comment accepted. See changes to section 5.6.3.1.

49-30 Comment accepted. See changes to table 5.6.3-1.

49-31 Comment accepted. See change to section 5.6.3.1.

5.6.3.2 Central Valley

49-32 Since burrowing owls exists in the Central Valley and in the Coast Ranges, we recommend that the same mitigation referenced in section 5.6.3.1 be required in these other regions.

San Joaquin Kit Fox

49-33 On page 5-60, please revise the last sentence of the first bullet to read: "The results of these surveys shall be presented to DFG and the FWS within two weeks of their completion."

49-34 We also suggest a fourth bullet with the statement: "In areas with known or likely kit fox activity, if destroyed dens within the right-of-way equal 20 percent or more of the dens within .25 miles of the right-of way, artificial escape dens shall be constructed at a ratio of one den constructed for each den destroyed.

49-35 We recommend a compensation ratio 3:1 for permanent impacts to San Joaquin kit
fox habitat in natural areas, and a compensation ratio of 1:1 for permanent impacts to
agricultural lands and disturbed habitat. For temporary impacts to chenopod scrub and to
49-36 nonnative grasslands, we recommend a compensation ratio of 1.1:1. For temporary
49-37 impacts to grasslands in the Central Valley, we recommend a compensation ratio of 0.3:1.

49-38 We do not endorse the compensation formula proposed for use in
Appendix D, pages D-2 and D-3. Furthermore, we were unable to duplicate the results
49-39 stated in the text using the compensation formula. The text states that using the formula,
compensation for temporary impacts would be 0.3:1 for nonnative grassland, and 1.08:1
for chenopod scrub. Instead, our results were $A_c = (A_i \times 5 \times 3)/(1 \times 30) = 0.5:1$ for
nonnative grassland, and $A_c = (A_i \times 18 \times 3)/(1 \times 30) = 1.8:1$ for chenopod scrub.

Swainson's Hawk

49-40 We suggest that the last paragraph on page 5-61 be changed to reflect that the nesting season is from March through August and that a window for disturbance - free construction exists from September through February.

49-41 The first bullet on page 5-62 should be changed to conduct surveys in April rather than March. Nesting territories may be established in March, but actual nesting does not occur until early and mid-March.

49-32 Comment accepted. See changes to sections 5.6.3.2 and 5.6.3.3.

49-33 Comment accepted. See changes to San Joaquin kit fox discussion in section 5.6.3.2.

49-34 Comment accepted. See changes to San Joaquin kit fox discussion in section 5.6.3.2.

49-35 Comment accepted. See changes to San Joaquin kit fox discussion in section 5.6.3.2.

49-36 Comment noted. See existing text in section 5.6.3.2 and table 5.6.3-1.

49-37 Comment noted. See response to comment 49-36.

49-38 The formula in appendix D contained a typographical error. The period of compensation should have been 50 years, not 30. See revised appendix D.

49-39 Comment accepted. See response to comment 49-38.

49-40 Comment accepted. See changes to Swainson's hawk discussion in section 5.6.3.2.

49-41 Comment accepted. See changes to Swainson's hawk discussion in section 5.6.3.2.

49-42 The last Swainson's hawk bullet on page 5-62 should reflect that any changes in behavior which indicate that project disturbance is likely to cause nest abandonment or the mortality of young due to heat or cold exposure shall require immediate work stoppage and withdrawal from the area.

49-43 The FERC/SLC additional staff recommendation for the Swainson's hawk on page 5-62 should reference page 11 of the DFG staff report regarding mitigation for impacts to Swainson's hawks in the central valley of California, for additional requirements related to nest tree removal.

Blunt-nosed Leopard Lizard

49-44 We recommend that the first bullet on page 5-62 require the use of DFG methodology
developed in Region IV. Additionally, the first nonbulleted paragraph on page 5-63, last
49-45 sentence has the active period for the lizard reversed. The active period is April through
October. The DFG also recommends that the FERC/SLC staff recommendation for the
lizard reflect that they should be rescued if construction occurs during the dormant period.

49-46 On the same page, the document states that the lost blunt-nosed leopard lizard habitat is mitigated for by the acquisition of kit fox habitat. It should be reversed where specific lizard habitat is acquired that can also count as kit fox habitat.

Giant Garter Snake

49-47 In the first paragraph on page 5-63, second sentence please revise to indicate that
both adults and juveniles hibernate in upland hibernacula. In the first bullet on page 5-64,
49-48 please delete "when possible". Construction must occur during April through September.

49-49 On page 5-64, we recommend the addition of a sixth bullet with the following statement: "Revegetation and post project vegetation maintenance in riparian zones should be scheduled when the giant garter snake is active (May to October), while avoiding disturbance to active Swainson's hawk nests."

5.6.3.3 Coast Ranges - San Francisco Bay Area
San Joaquin Kit Fox

On page 5-68 we concur with the recommended compensation ratio of 1.1:1 for temporary impacts to San Joaquin kit fox habitat in the Coast Ranges.

49-42 Comment accepted. See changes to Swainson's hawk discussion in section 5.6.3.2.

49-43 Comment accepted. See changes to Swainson's hawk discussion in section 5.6.3.2.

49-44 Comment accepted. See changes to blunt-nosed leopard lizard discussion in section 5.6.3.2.

49-45 Comment accepted. See changes to blunt-nosed leopard lizard discussion in section 5.6.3.2.

49-46 Comment noted.

49-47 Comment accepted. See change to giant garter snake discussion in section 5.6.3.2.

49-48 Comment noted. See revised giant garter snake discussion in section 5.6.3.2 and new ARM 36 in section 7.5.1.1. We have added an agency-required mitigation measure that states if Mojave constructs during the dormant period (October through March), they must survey for giant garter snake in all suitable habitat. If giant garter snake are found, they must consult with DFG and FWS about mitigation.

49-49 Comment accepted. See change to giant garter snake discussion in section 5.6.3.2.

Golden Eagle

49-50 Impacts to golden eagles in the Coast Ranges are addressed on page 5-68. The golden eagle nesting season begins in January, with courtship. We recommend that construction only be allowed from August through December in areas where the pipeline will occur near active golden eagle nests.

Western Pond Turtle

49-51 On page 5-70, the text states that where occupied habitat cannot be avoided, the turtles would be captured and relocated to suitable habitat. The measure should state that if turtles are relocated, they should be moved the minimum distance required and released near their capture sites rather than relocated to different waters.

Alameda Whip Snake
San Francisco Garter Snake
California Tiger Salamander

We concur with the recommendations provided by SLC regarding potential impacts to Alameda whipsnake, San Francisco garter snake, and California tiger salamander. The mitigation plan should address impacts to the tiger salamander, and DFG should be included in the list of agencies requiring consultation. In Table 5.6.3-1 it is recommended

49-52 that construction be delayed during the breeding season of the tiger salamander. Tiger salamanders have been known to leave their burrows in search of breeding habitat with the first rains (generally around November 1). Please change the breeding season identified in the table to reflect this.

California Red-Legged Frog

49-53 Our recommended survey technique for determining the presence or absence of red-legged frogs includes night-time surveys. We have found that it is not sufficient to conduct preconstruction surveys based solely upon auditory response of the frogs. We require a minimum of three nights of surveys for a negative finding. We recommend the following protocol, prepared by the USFWS (March, 1994):

"1. To determine presence or absence of red-legged frogs, surveys should be conducted at night. The first half of the night is the best time period to survey.

2. A powerful light should be used to detect eye shine. To accurately identify red-legged frogs, the surveyor must be close enough to see the dorsolateral folds that distinguish red-legged frogs from bull-frogs.

49-50 Comment accepted. See change to golden eagle discussion in section 5.6.3.2.

49-51 Comment accepted. See change to western pond turtle discussion in section 5.6.3.2.

49-52 Comments accepted. See changes to table 5.6.3-1.

49-53 Comments accepted. See changes to California red-legged frog discussion in section 5.6.3.3.

49-53 3. The optimum time of the year to survey is March through the end of April. Surveys can be continued through September if necessary.

4. Tadpoles can be positively identified only by teeth patterns and requires considerable expertise. This technique is not recommended."

49-54 In the second bullet, please change "from" to "between" and change "to adjacent" to "and adjacent". In the third bullet, change "January 15 " to "January 1."

Coast Range Special Status Plants

49-55 Our preferred mitigation for impacts to special-status plants in the Coast Ranges is complete avoidance. Translocation has not been proven to be an effective method of establishing populations of special-status plants.

Large Flowered Fiddleneck and Santa Cruz Tarplant (page 5-74)

49-56 Due to the rarity of natural occurrences of both the large flowered fiddleneck and the Santa Cruz tarplant (in this portion of its range) we recommend that if either of these species are encountered within the right-of-way that they be avoided by minor realignments or by drilling the pipeline under them.

7.5. RECOMMENDED MITIGATION MEASURES

The DFG concurs that the Agency Recommended Mitigation measures (ARM) in chapter 7 shall be required in addition to the Mojave Proposed Measures (MPM).

7.5.1.2 Resource-Specific Conditions

49-57 Under Water Resources, on page 7-8, please include a specific ARM stating: "Prior to Construction, Mojave shall notify DFG regarding obtaining Stream Alteration Agreement(s) for intermittent and permanent stream crossings, including desert washes, and any lakes affected by the project."

49-58 On page 7-10 under Special Status Species, please include a new ARM stating: "Trenches should be inspected for animals at the beginning and at the end of the working day. In areas where kit fox, tipton and short-nosed kangaroo rats, blunt-nosed leopard lizards and desert tortoise are present, escape ramps should be provided at a minimum of 500 foot intervals."

49-54 Comments accepted. See changes to California red-legged frog discussion in section 5.6.3.3.

49-55 We recommend the adoption of the Tracy to Antioch Railroad Alternative so that most of the unsurveyed areas of the Coast Ranges and the 14 acres of alkali lowlands would be avoided. As a result, we believe no special status plants in the Coast Ranges would be affected by the project.

49-56 Comment noted. See response to comment 49-55.

49-57 Comment noted. See response to comment 49-16.

49-58 Comment accepted. See changes to section 5.6.2 and new ARM 29 in section 7.5.1.2, which indicates the required trench inspection frequencies and escape ramp requirements for special status species. Because the actual interval for escape ramps could be greater or less than 500' depending on the length of trench left open and the density of species present, we believe that placement of ramps should be "as necessary" as determined by the Biological Monitor in consultation with the DFG and FWS.

49-59 ARM 35 should reflect consultation with DFG.

7.5.2.1 General Mitigation Measures

49-60 On page 7-29, MPM 47 addresses mitigation measures required for impacts to San
Joaquin kit fox. As stated earlier, the results of all pre-construction surveys should be
submitted to DFG as well as FWS. Additionally, we recommend that compensation
requirements for impacts to the species be discussed in this portion of the text. Please
49-61 indicate that in eastern Contra Costa and Alameda counties, 1.1:1 compensation will be
required for any temporary impacts to annual grassland.

APPENDIX A
Mulch Specifications

49-62 All mulch in non-cultivated areas should be of a type that will not introduce weeds.

APPENDIX C
Waterbody Crossings

49-63 On page C-3, section D, General Crossing Procedures, please include: "Comply with DFG Stream Alteration Agreement conditions" as a numbered item. This same condition should be added to sections E, F, G, H, I, J, K, and L on the pages that follow.

Monitoring Plan

49-64 A monitoring plan should be prepared which provides methods for determining if the success criteria outlined in the detailed mitigation plans for any special status species or sensitive plant communities have been met. A draft monitoring plan should be submitted to the DFG and FWS after pre-construction surveys have been completed and all specific mitigation measures and plans have been reviewed and approved by both agencies. The monitoring plan should also be subject to the approval of both agencies. Quantitative methods should be provided for determining if success criteria have been met.

Alternative Route

As stated above, we are very concerned about the potential impacts to sensitive species in eastern Alameda and Contra Costa counties, especially since much of the proposed right-of-way in this portion of the project was not accessible to biologists conducting surveys for the biological assessment. Because the alternative route along

49-59 Comment accepted. See change to section 7.5.1.2.

49-60 Comment accepted. See response to comment 49-33 regarding submittal of preconstruction survey reports to the DFG. The compensation requirements for impact on species are adequately addressed; see ARMs 30 through 38 and MPMs 39 through 54. Additionally, section 5.6.3 adequately describes the compensation requirements for special status species.

49-61 Comment noted. See response to comment 49-60.

49-62 Comment accepted. Mojave has proposed to use a noxious weed-free mulch similar to that used on the original project.

49-63 Appendix C is the FERC staff's general procedures for waterbody crossings. See response to comment 49-57 regarding the requirement to obtain state-issued waterbody crossing permits.

49-64 Comment noted. The SLC requires that a Mitigation Monitoring Plan be prepared for all mitigation proposed by Mojave and required by the agencies; the biological resources portion of the Mitigation Monitoring Plan will be submitted to the DFG and FWS for review/approval prior to construction.

the railroad poses fewer impacts to sensitive biological resources, we encourage its adoption.

General Comments

There are a few instances in which mitigation measures are somewhat vague. In those cases there should be a predetermined trigger or threshold for a specific action.

49-65 Several construction windows are proposed to avoid impacts to fisheries and special status species. It should be confirmed that these windows are all feasible in combination, and if not, contingency plans for these and similar circumstances should be described. Decision criteria and responsible parties would facilitate response if, for

49-66 example, an active burrowing owl nest was found in a construction zone.

49-67 Finally, the document states that the actual construction footprint may deviate from that predicted. A process should be described for providing post-project footprint and recalculating mitigation.

Thank you for working so closely with us. If you have any questions please contact Mr. Bob Orcutt of the Department's Environmental Services Division, 1416 Ninth Street, Sacramento, California 95814, or by telephone at (916) 653-9719; or you may contact Mr. Joe Vincenty, Environmental Specialist III, at (916) 653-0858.

for
John Turner, Chief
Environmental Services Division

cc: Department of Fish and Game
Sacramento

Mr. Al Petrovich
Mr. Banky Curtis
Mr. Joe Vincenty

Federal Energy Regulatory Commission
Washington, DC

Mr. Michael Boyle

(cc's continued on next page)

49-65 Comment noted. Procedures for addressing contingencies encountered during construction are provided by existing CESA and ESA requirements for reinitiating consultation.

49-66 Comment noted. Identification of decision criteria and responsible parties would be included in the Mitigation Monitoring Plan (see response to comment 49-65).

49-67 Comment accepted. Mojave would recalculate mitigation on the basis of postconstruction measurements of actual disturbance; the measurement techniques would be described in the DFG and FWS Biological Opinions and Habitat Mitigation Agreement (see new ARM ____ in section 7.5.1.1 and changes to sections 5.4 and 5.6.

State of California

California Environmental
Protection Agency

MEMORANDUM

To: Michael Chiriatti
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814
(916) 445-0613

Date: March 28, 1995

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814
(916) 322-0354

From: Marcia Keesey
Marcia Keesey
Environmental Review Section
Permits Branch
Permitting and Enforcement Division
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Subject: SCH# 94032040 - Draft Environmental Impact Report/ Environmental Impact Statement for the Mojave (Natural Gas) Pipeline Northward Expansion Project, Central and Northern California

PROJECT DESCRIPTION

Background

The Mojave Northward Expansion Project Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was prepared jointly by the staffs of the California State Lands Commission (SLC) and the Federal Energy Regulatory Commission (FERC), in cooperation with the U.S. Bureau of Land Management (BLM). The EIR/EIS, issued in February 1995, reports the results of their assessment of the environmental effects of a proposal by the Mojave Pipeline Company (Mojave) to expand its existing natural gas pipeline system into Central and Northern California.

Proposed Action

Depending on the final project configuration, the major facilities that Mojave now proposes to construct consist of:

☐ Between 660 and 681 miles of new pipeline with diameters ranging from 4 to 30 inches. The new pipeline includes (1) a North Mainline about 240 miles long from near Bakersfield northward to Martinez; (2) a Sacramento Mainline about 63 miles long from Ripon to southwest Sacramento; (3) shorter segments that may include pipelines to Lindsay, Famoso, Coalinga, Kinsburg, Sanger, Livingston, Turlock, Ceres, Modesto, Tracy, Oakland, Antioch, Fremont, McFarland, Malaga, Madera, Fairmead, Ripon, Lathrop, Hunters Point, and San Francisco; and (4) a maximum of about 100 miles of 30-inch diameter pipeline loops on the existing Mojave Mainline, Mojave-Kern River East Side Lateral, and Mojave-Kern River Commonline. (A pipeline loop is a segment of pipeline installed parallel to an existing pipeline and connected to it at both ends in order to increase the volume of gas that can be transported through the pipeline system.)

☐ Three new compressor stations in California near Amboy, Daggett, and either Famoso or Lindsay providing a total of 62,588 to 78,758 horsepower (hp) of compression plus modifications at Mojave's existing compressor station in Topock, Arizona, to add 24,470 hp of compression.

☐ Either 55 or 58 new meter stations.

About 80 percent of the total proposed route is in or directly adjacent to rights-of-way for railroads, surface roads, pipelines, or electric transmission lines. The total cost to construct the proposed Mojave Northward Expansion Project facilities is about $500 million in 1994 dollars. Mojave's anticipated in-service date is early 1996.

Following preconstruction activities such as surveying, staking right-of-way boundaries, and permit acquisition, pipeline construction would include the following activities: clearing and grading, excavation of the pipeline trench, stringing and bending, welding, coating, lowering and backfilling, testing, topsoil replacement, cleanup, restoration, and startup. Trenches would be excavated with a self-propelled trenching machine, wheel-ditcher, saw trencher, or backhoe. The depth of the trench would vary with the diameter (4 to 30 inches) of the pipeline and the various overburden conditions encountered. Typical pipeline burial depth for normal soil is 30 to 36 inches; between Bakersfield and the junction with the Sacramento Mainline the soil cover depth would be 60 inches.

Project construction would take nine months. Separate work crews would construct the three new compressor stations and modify the existing Topock Compressor Station. Construction on all spreads and the compressor stations is scheduled to commence mid 1995, pending FERC certification and SLC approval. Construction would start at the southern end of each spread and move northward.

GENERAL COMMENTS

The California Integrated Waste Management Board (CIWMB) regulates solid waste facilities, such as landfills, transfer stations, and materials recycling facilities, throughout the State of California. Since CIWMB does not anticipate having any discretionary authority over the proposed project (e.g., issuance of permits), this review is done from the perspective of a commenting agency.

50-1 CIWMB staff is concerned that the proposed route for the pipeline
expansion may traverse an existing municipal waste landfill in
the City of Brisbane. Because the draft EIR/EIS did not identify
the landfill's location, CIWMB staff believe that the proposed
routing was an oversight, and that the SLC and FERC staffs are
aware that construction and operation of natural gas pipelines
through landfills is not advisable. In addition to the potential
50-2 for health and safety concerns, differential settlement,
corrosion, and interception of explosive gases or underground
fires, such activity could contribute to the loss of integrity of
the landfill's control systems to maintain adequate protection of
the environment. Also, there is the potential for the pipeline's
50-3 presence on a landfill to implicate FERC, SLC, and Mojave should
there be cleanup liability issues involving the landfill in the
future.

50-4 To ensure that there are no other incompatible landfill areas
along the proposed routes, CIWMB staff requests that the document
preparers consult with the Local Enforcement Agencies (LEAs) in
each county to be traversed. The LEAs are responsible for solid
waste issues on behalf of the CIWMB, and would be able to assist
in identifying known (non-hazardous waste) disposal areas. A
list that includes the names, addresses, and phone numbers of the
LEAs is attached. Efforts should also be made to identify
50-5 unknown, unpermitted disposal sites along the proposed routes by
examining old aerial photographs, reviewing county records, or by
geophysical surveys.

MITIGATION REPORTING OR MONITORING PROGRAM

50-6 Potential environmental impacts or consequences associated with this project and proposed measures to minimize or mitigate adverse environmental effects must be included in a Mitigation Reporting or Monitoring Program (MRMP) and adopted as part of the project.

50-7 Each proposed mitigation measure should include specific descriptions of its purpose and/or goal, how the measure will be implemented, and identify who is responsible for implementation, as well as where and when the mitigation measure will occur. The MRMP should be designed to ensure compliance during project implementation and include measures to track the effectiveness of the mitigation measures. These factors may be used in determining the effectiveness of the proposed mitigation measures. Note that mitigation measures such as "will comply with existing regulations or ordinances" or "will meet minimum

50-1 Thank you for your letter. Comment accepted. See responses to comments 2-22 and 2-23 and revised section 5.7.1.3 which discusses the landfill and the procedures that would be used to cross it for a short distance.

50-2 Comment noted. We have added these concerns to the discussion of the landfill in section 5.7.1.3.

50-3 Thank you for the information.

50-4 According to Mojave's Contamination Prescreening Report, the files of the Local Enforcement Agency of each county along the route were reviewed.

50-5 Mojave would construct more than 80% of the route within railroad and road rights-of-way. Numerous agencies, including the Local Enforcement Agencies, were contacted for information during the preparation of the draft EIR/EIS. We do not believe that the suggested additional studies would result in significant new information. If unknown, unpermitted former landfill sites are encountered during construction, Mojave would implement its General Contingency Plan and would notify the appropriate authorities.

50-6 Comment noted. A Mitigation Monitoring Plan will be prepared as part of the project.

50-7 Comment noted. The SLC staff is aware of the requirements for mitigation monitoring established in Public Resources Code §21081.6.

standards" may not be considered adequate mitigation.[1]

50-8 Identification of potentially significant environmental impacts which cannot be mitigated require a written "finding of overriding considerations" for each significant impact area identified.

50-9 A recent amendment to Public Resources Code Section 21081.6(b) further requires the public agency to "...provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." CIWMB staff suggest that the final environmental document establish enforcement procedures and penalties, as well as develop conflict resolution provisions.

If you have any questions regarding these comments, please contact me at (916) 255-2401.

cc: Ms. Carole G. Nelson, Planning Director
City of Brisbane
150 North Hill Drive, Suite 40
Brisbane, CA 94005

Ms. Barbara J. Cook, P.E., Chief
Department of Toxic Substances Control, Region 2
Site Mitigation Branch
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

50-8 As described in the "Environmental Staff Conclusions" of the draft EIR/EIS's Executive Summary, the SLC would make a finding of overriding consideration for each significant impact.

50-9 The proposed project mitigation has been designed to be fully enforceable through conditions imposed on the project by SLC and FERC.

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[1] Bass, Ronald E., and Albert I. Herson, Successful CEQA Compliance: A Step-by-Step Approach. Point Arena, Calif.: Solano Press Books, 1994.

STANFORD UNIVERSITY
PLANNING OFFICE

March 27, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Re: Docket Nos. CP93-258-000, et al.

Dear Ms. Griggs:

Stanford University has the following comments on the Mojave Pipeline Northward Expansion Project Draft EIR/EIS. Approximately 2 miles of 12" pipeline on the San Francisco segment and a meter station are proposed for construction on Stanford land. With this letter we are commenting on the environmental clearance for construction of the project and not committing Stanford University or Cardinal Cogen (operator of the Central Energy Facility) to purchase natural gas from Mojave Pipeline Company.

51-1 We request that Mojave Pipeline work closely with Stanford University Planning Office and Utilities Department to identify the least disruptive route through campus. The route identified in the DEIR/EIS shows the pipeline within Palm Drive for over a 1/4-mile. Last summer, Stanford completely reconstructed Palm Drive, the symbolic entrance to campus, using the granite curbs that were originally envisioned but never built by Frederick Law Olmsted in 1889. In addition, a route outside but adjacent to Palm Drive would be within the Arboretum of Stanford. Therefore, a route along Palm Drive would be unacceptable. We would request that Mojave bore and jack a casing under Palm Drive
51-2 because of the importance to Stanford. There are other routes through campus which
51-3 would result in fewer impacts to Stanford's resources and we must be able to assist in the selection of such a route. The impacts of this slightly revised route should be described in the FEIR/EIS.

51-4 We recognize mitigation measure ARM 43: Mojave shall work closely with Stanford University and Candlestick Park to schedule construction activities to minimize conflicts with scheduled events. We prefer that construction take place between Commencement and the first football game (i.e., between mid-June and the end of August). However, we would require consultation at any time of year to minimize conflicts with our own circulation patterns and construction projects on campus.

Impacts to trees are described on page 5-104 of the DEIR/EIS. The document states that large-diameter trees would be spared as much as possible in accordance with Stanford University's requirements by using more workspace on roads as opposed to adjacent wooded areas. In addition, the revegetation plan provided in Appendix B provides some mitigation for removal of oak trees (30 acorns planted for every oak tree greater than 6" in diameter). We would require replanting of trees (15-gallon) for every tree lost
51-5 (regardless of species) at a ratio of 3:1, not necessarily of the same species as the tree

51-1 Thank you for your letter. Mojave is working closely with the Stanford University Planning Office and Utilities Department. Final minor route changes can occur during the easement negotiation process.

51-2 Mojave would bore under Palm Drive. See response to comment 51-1.

51-3 See response to comment 51-1.

51-4 We will pass this request on to Mojave.

51-5 Comment accepted. We believe that a full replacement of 3:1 is excessive. The project revegetation plan in appendix B requires the replacement of trees at 3:1, the intent of achieving a full replacement of 1:1. See the FERC staff's plan in appendix A (VI.D.B) concerning restoration of landscaped areas.

51-5 being removed. We would also require maintenance to ensure survival of these trees, and/or monitoring and replacement, to provide the full 3:1 replacement. Local jurisdictions require such a replacement ratio for approval of Stanford projects. This ratio is also supported by the value of trees that is described in Stanford's Facility Design Standards.

51-6 Portions of the route and the meter station would be within 1/2-mile of Lake Lagunita, a known breeding ground for the California Tiger Salamander. The project site should be surveyed for potential aestivation habitat. The other California Tiger Salamander mitigation measures (MPM 54) would apply if potential habitat is identified.

Sincerely,

Catherine Palter

Catherine Palter
Environmental Planner

51-6 Mojave would perform preconstruction surveys for potential aestivation habitat of the California Tiger Salamander and employ MPM 54 if potential habitat is identified.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

52-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,

Linda M.

52-1 Thank you for your comment letter. Provisions have been made to narrow the construction work space in orchard and vineyard areas to minimize damages. In all cases between Mohler and Manteca roads along the pipeline route, no more than one row of trees would be removed for construction. Following construction, Mojave would allow the replacement of trees up to within ten feet of the pipeline. Also see section 3.4 and section 6.4 for our analyses of alternatives in the Ripon area.

KERN COUNTY HEALTH DEPARTMENT

Babatunde A. Jinadu, M.D., M.P.H.
Director of Public Health Services
Health Officer

Jackie Ambrose, Senior Secretary
1700 Flower Street
Bakersfield, CA 93305-4198
(805) 861-3655

March 24, 1995

Ms. Mary Griggs
California State Land Commission
Environmental Project Manager
1807-13th Street
Sacramento, CA 95814

RE: Docket #CP93-258-000, et al

Dear Ms. Griggs:

I am writing to provide comments on the natural gas pipeline facilities proposed by Mojave Pipeline Operating Company (Mojave) in the above referenced dockets.

53-1 In reviewing this project and the proposed route which the pipeline will take through Kern County, it is appropriate to bring to your attention that this proposed route will run through an area known to be a "hot spot" for Valley Fever spores. As you are probably aware, Kern County has had an epidemic of Valley Fever cases in recent years. Prior to 1991, the county has had an annual case rate of about 200-300 cases per year. Starting from September 1991 the county experienced an upsurge of cases (1181) reaching a peak of 3342 in 1992. To date, there have been 8500 cases. Attachment A is a graphic illustration of the epidemic.

I have also enclosed a map of the county (Attachment B) showing areas where the Valley Fever spores have been found through soil testing. As you can see, the areas along the foothills are "hot spots." You will also note that the pipeline construction will run through one of the spots along an area known as Shark's Tooth Hill.

It is a well know fact that any activity that stirs up dust that may contain Valley Fever spores is a potential health risk. This risk applies to those who are in the vicinity, particularly workers, as well as those who may be nearby as a result of the fugitive dust, or even those who may be further away depending on wind conditions.

53-2 It is therefore prudent to take necessary steps to reduce and minimize this potential health risk by including dust control measures in your report. It is suggested that you consider the following:

- adequate wetting of the soil to avoid stirring up any dust;

53-1 Thank you for your letter. The scale of the map provided did not allow us to determine whether the proposed route actually crosses the "hot spot". The proposed route is about 2 to 2.5 miles west of the area known as Shark's Tooth Hill, as measured on USGS topographic maps. Please see new section 5.11.5 which describes Valley Fever and mitigation.

53-2 In section 5.11.5 we recommend that Mojave develop a "Valley Fever" mitigation plan in consultation with the Kern County Health Department. Dust control measures are described in section 5.10.1.3.

53-2 - the use of masks. Given the size of the Valley Fever spores that is about 4 microns in size, an appropriate type of mask that will provide a barrier to the spore should be recommended. (Dust/mist mask)

- avoid working on extremely windy days;

- provide workers with educational materials such as the attached pamphlet.

It must be emphasized that the above suggestions will not totally eliminate the risk of exposure but will conceptually reduce the risk and is undoubtedly a prudent course of action that demonstrates due diligence on the part of Mojave to protect the health of the workers. Even if the workers refuse to wear the masks, the employer would have done its part.

53-3 It may also be appropriate to recommend that those participating in the construction who have never been skin tested, who have never had Valley Fever infection, or who are unsure of their status be offered skin testing before starting on the job. Those who test negative should be retested in 4-6 weeks after the completion of this project.

Please feel free to contact me if you have any questions.

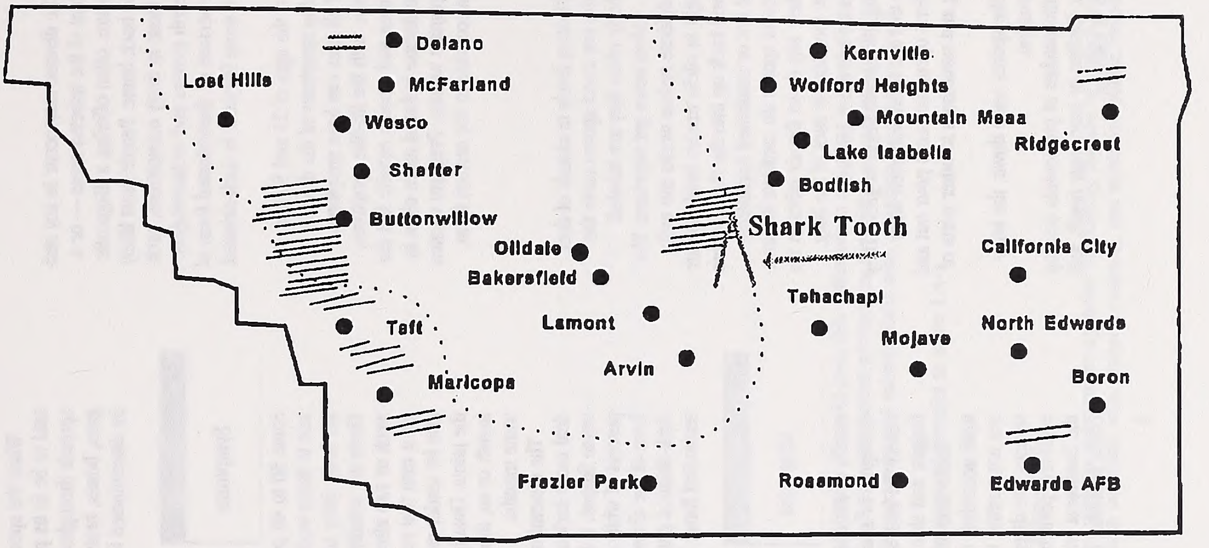
Sincerely,

B. A. Jinadu, M.D., M.P.H.
Director of Public Health Services
Health Officer

BAJ:ja

53-3 Mojave does not agree to skin test construction workers, but will educate all construction workers as to the risks of Valley Fever.

Coccidioidomycosis(Valley Fever) Kern County


Delano
McFarland
Lost Hills
Wesco
Shafter
Buttonwillow
Oildale
Bakersfield
Taft
Maricopa
Lamont
Arvin
Frazier Park
Kernville
Wofford Heights
Mountain Mesa
Lake Isabella
Bodfish
Shark Tooth
Ridgecrest
California City
Tehachapi
Mojave
North Edwards
Boron
Rosamond
Edwards AFB

Legend: ▤ Coccidioidomycosis Soil Isolation

Source: Kern County Health Department Public Health Laboratory, 1994

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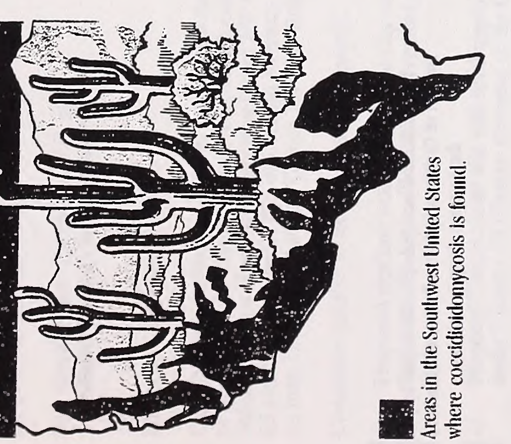
facts about...

COCCI (Coccidioidomycosis)



■ Areas in the Southwest United States where coccidioidomycosis is found.

What Is Cocci?

The sunny Southwest was a great place for training the fliers of World War II. But it turned out to have a special medical problem. The young airmen and crews at the large flying fields built in the Southwest by the Army Air Corps came down with a feverish illness at an alarming rate.

The disease that the fliers had contracted was what local people called valley fever, desert fever, or San Joaquin Valley fever. The technical name is coccidioidomycosis (KOK-sid-dee-OY-do-my-KO-sis) or "cocci," for short.

Cocci is a sickness of degree. Most people catching it do not get sick at all; they don't even know they have the disease. Of those who do get sick, most have flu-like symptoms — this is what happened to the airmen. Only a very small percentage of cocci patients develops the disease in its serious, or disseminated, form (widespread throughout the body).

What Causes Cocci?

Cocci is a fungus disease — caused by a tiny form of plant life, somewhat like yeast or mildew.

The tiny seeds, called spores, are found in dust and are inhaled into the lungs. But they can spread to other parts of the body, too. In rare cases infection may result when the fungus-filled dust settles in a skin scratch.

The problem of the swirling desert dusts was partially solved by the Air Corps when it learned to control dust stirred up along runways — through irrigation and planting grass or laying more concrete. Infected soil is the danger. The disease is not spread from human to human. After one bout with cocci, the body develops immunity to a second infection.

Small desert animals such as gophers and some domestic animals may be infected by inhaling the spores. But they do not spread the infection to human beings.

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Who Gets Cocci?

The disease may occur in any resident of the infected areas — or a visitor, often offering a diagnostic puzzle to the doctor back home. People most likely to be exposed are those in dusty occupations, such as farm workers, earth movers and archaeologists. However, the more serious or disseminated form of cocci is many times more frequent in dark-skinned people.

Persons between the ages of 25 and 55 are most likely to develop symptoms of the disease — although people of all ages can have symptoms.

In its simple form, with the flu-like symptoms, cocci affects both men and women equally. But the serious form of the disease is found more often in men than in nonpregnant women. Pregnant women seem to be more susceptible to the serious form.

How the Spores Affect the Body

Floating freely in clouds of dust, the tiny cocci spores enter the body when they are inhaled.

Most never get anywhere. The body's wonderful defense system works too well: the spores get caught in sticky mucus inside the air tubes and are moved back up into the throat where they are either spit out or swallowed harmlessly.

But some few cocci spores do continue the invasion. They work their way down the air tubes to the end of the passage: the little air sacs of the lung, where the air ends up when it is inhaled.

Deep in the lung, the spores begin to grow. They develop into pods that are filled with even tinier seeds. The pods burst open, the seeds pour out and spread in the lung and sometimes to other parts of the body.

And wherever the spores settle down, the body reacts with inflammation.

In the lungs, little patches of pneumonia develop around the spores. Cavities or scars may result, and eventually deposits of calcium.

When the spores stay in the lungs, the disease is said to be in its primary form. When the fungus spreads throughout the body — to the internal organs, bones, brain, and even the skin — cocci is in its disseminated form.

Symptoms

Perhaps as many as 60 to 70 percent of all people infected with cocci develop no symptoms at all. Some 30 to 40 percent do get sick — usually within one to three weeks after the cocci spores invade the body. Fever may go as high as 104 degrees. There are usually aches and pains and a cough. A week or two after the fever develops some patients get a rash that resembles the measles. There may also be tender red spots on the shins and pains in the joints. Usually symptoms disappear within a month or so, though full return of energy may take some months.

The disseminated form of the disease is a great deal more serious — with very high fever and extreme fatigue. It has been estimated that about one percent of white patients develops the disseminated form of the disease. But in ten to twenty percent of dark-skinned patients, cocci progresses to its disseminated form. It can be fatal.

Diagnosis

Usually, diagnosis is made on the basis of one or more of the following three types of tests: recovery of the cocci organisms from sputum (phlegm) or some other body fluid; blood tests that reflect the body's reaction to the presence of the fungus; and skin tests.

These tests are quite reliable, but they may fluctuate according to the stage of the disease. The tests are not positive in every case of cocci. In some instances, the diagnosis may rest on circumstantial evidence, particularly for people living in an area of the Southwest where much cocci is found. In most cases, however, these tests are helpful.

Chest X-rays reveal some of the abnormalities associated with cocci, but the shadows may be mistaken for those of tuberculosis or some other lung disease.

Treatment

Patients suffering from the flu-like symptoms of cocci in its primary form will probably be sent to bed by the doctor. Symptoms, such as cough and fever, will be treated.

For the disseminated form of the disease, a specific drug — amphotericin B — is available. This drug must be injected slowly into the bloodstream almost daily over a period of from one to six months. It may have disturbing side effects. For this reason, the drug's use is reserved for the more complicated cases, and hospitalization is required.

Occasionally surgery is recommended to remove a diseased portion of the lung, bone or skin.

The Future

There are many mysteries — yet unraveled — about cocci. And better methods both to prevent and treat the disease remain to be found.

Simple avoidance of infected areas is probably best for newcomers among black, Mexican and Filipino adults. Those who have lived there since childhood may well have developed a kind of immunity to the disease that newcomers do not have.

Methods for the control and sterilization of dust are being studied and improved.

Some research, including work on a vaccine, is now being done on ways to make people immune to cocci. Also needed is a drug to take the place of amphotericin B — one that can be taken by mouth and with fewer side effects.

When To Check With Your Doctor About Cocci

Anyone living or traveling in the Southwest United States should be aware of cocci and suspicious of flu-like symptoms — fever, aches and pains, and a cough. These may disappear in a day or two without treatment; on the other hand, the symptoms might indicate serious illness such as flu or cocci.

It is wise always to check with a doctor — because only he can tell.

New people coming into the cocci area particularly should be informed about the disease. Old residents may wish to ask for a cocci skin test. But even if the skin test is positive, there is no reason to change one's mode of life if there is no other evidence of active disease.

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0181 Published by American Lung Association 5/89

CITY OF TULARE

Planning and Building

March 8, 1995

California State Lands Commission
1807 13th Street
Sacramento, CA 95814

ATTENTION: MS. MARY GRIGGS

RE: Docket Nos. CP93-258-000, et al.

Ladies & Gentlemen:

Our discussion is limited to those areas where the proposed Mojave pipeline will traverse through or adjacent to the City of Tulare. Proposed location through Tulare is depicted on map 4 of 43 of Volume II maps (Famoso Alternative) from MP 60 (Avenue 184) to a point half way between MP 65 and MP 70 (Avenue 256 or Cartmill Avenue). In addition, the "Lindsay Segment" as depicted on map 18 of 43 of Volume II from MP O to State Route 63 will be within the city limits of Tulare.

Comments relative to the "Famcso alternative".

54-1 i) Proposed pipeline will cross several city streets that contain water, sewer storm drain facilities. The city will need improvement plans and profiles (preliminary and as-built) and an encroachment permit.

54-2 2) Proposed Tulare meter site will need approval from the City of Tulare Planning Commission under Chapter 10 (Design Review) of the City's Zoning Ordinance.

Comments relative to the "Lindsay Segment":

54-3 1) An encroachment permit will be needed for the pipeline within the Cartmill Avenue right-of-way.

54-4 2) Placement of the proposed pipeline at the Cartmill interchange will need to be consistent with future plans to expand that freeway interchange.

54-1 Thank you for your letter. We will pass this information and your request along to Mojave. Also, see our new section 2.4.3 on construction procedures for utility crossings. Mojave would coordinate with the City's Utility Department and submit plans with adequate time for review.

54-2 We have added the required permits to table 1.4-1.

54-3 See response to comment 54-2.

54-4 Mojave would meet with the appropriate agencies in a timely fashion to ensure compliance with all local ordinances, minimize conflicts with planned projects, and minimize public inconvenience.

Additionally, comments from the City of Tulare Engineering Department are attached and it is requested that all comments be made conditions of approval or mitigation measures for any property approval.

We will be looking forward to review the final environmental document and any staff report and final determination associated with the project.

Sincerely,

KIRK E. LINDSEY, AICP
DIRECTOR OF PLANNING AND BUILDING

Mark S. Kielty, Senior Planner
Planning Division

c: Mr. Michael Boyle
Federal Energy Regulatory Commission
825 North Capitol Street NE,
Room 7312
Washington, D.C. 20426

James P. Brown, Assistant City Engineer

Attachment

MEMORANDUM:

TO: Kirk Lindsey, Director of Planning and Building

FROM: James P. Brown, Assistant City Engineer

SUBJECT: **Mojave Pipeline Northward Expansion Project**

DATE: March 24, 1995

We have reviewed the environmental documents submitted on the proposed project. Engineering considerations are as follows:

54-5 1. A franchise with the city will be required. Franchise to contain provision that in the event the pipeline conflicts with any proposed city facilities in the future, that the pipeline will be relocated by the franchise holder at no cost to the city.

54-6 2. Pipeline and easement will need to stay within 50 feet of the main Southern Pacific Transportation tracks in areas being proposed by the city for purchase and development. This includes areas that the Redevelopment Agency is working on for development and the area on the west side of the railroad between Pleasant and Cross Avenues which is being considered for a storm water diversion and ground water recharge basin.

54-7 3. Encroachment and street cut permits are required for any work in the street rights of way. Plan and profile drawings will be required with the encroachment permit application. The contractor will be required to maintain one 12-foot travel lane in each direction at all city street crossings and restore all street improvements damaged to city standards. Inyo Avenue at the proposed route is State Highway Route 137 and requires an encroachment permit from Cal Trans.

54-8 4. The location and depth of the Lindsay Segment shall conform to the Project Study Report for the Cartmill Interchange at State Highway No. 99 and future street and public utility improvements in Cartmill Avenue.

James P. Brown
James P. Brown

:al

54-5 Comment noted. We have added the franchise requirement to table 1.4-1.

54-6 Thank you for this information. Mojave currently intends to locate the pipeline within 50 feet of the Southern Pacific tracks between Pleasant and Cross avenues. An additional 20 feet of temporary working space may be required adjacent to the Southern Pacific right-of-way. This was discussed with Mr. J. P. Brown of the Tulare Planning Department. Mr. Brown indicated this was acceptable.

54-7 Comment noted. We will pass this information on to Mojave.

54-8 See response to comment 54-4.

City of San Leandro
Civic Center, 835 E. 14th Street
San Leandro, California 94577

March 27, 1995

VIA FAX AND US MAIL

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 - 13th Street
Sacramento, California 95814

RE: Mojave Pipeline Northward Expansion Project
Draft Environmental Impact Report/Environmental Impact Statement

Dear Ms. Griggs:

55-1 Please find the attached memorandum that contains the comments prepared by our Engineering and Transportation Department, relating to the project referenced above.

We appreciate this opportunity to review the Draft EIR/S, and look forward to receiving copies of the Final EIR/S.

Sincerely yours,

Elmer Penaranda

Elmer Penaranda
Assistant Planner

cc: Steve Emslie, Planning Manager
Norm Weisbrod, Associate Planner
William Algire, Engineering and Transportation Director
Uche Udemezue, Senior Engineer
Ken Vogeney, Associate Engineer
Kenneth Joseph, Assistant Engineer
Susan McCue, Economic Development Coordinator

d:\MOJAVEIR.LTR

Ellen M. Corbett, Mayor
City Council: Gordon A. Galvan; Howard W. Kerr; Garry A. Loeffler;

55-1 Thank you for your comments. Mojave has dropped the Oakland Segment from the project; therefore, no pipeline construction will occur in San Leandro.

CITY OF SAN LEANDRO

MEMORANDUM

DATE: March 6, 1995

TO: Steve Emslie, Planning Manager

FROM: Uche Udemezue, Senior Engineer
Engineering and Transportation Department

BY: Kenneth C. Joseph, Assistant Engineer

SUBJECT: EIR/EIS Mojave Pipeline

The Mojave Pipeline Operating Company (Mojave) intends to expand its natural gas distribution system into the San Francisco Bay Area among many other locations. Specific to San Leandro, an 8 inch gas main is proposed to cross the City which includes an at-grade metering station. An EIR/EIS document has been prepared to define the project, define alternative routes, recommend mitigating measures, and solicit comments ending with a certified environmental statement.

Based on the information supplied in the EIR/EIS document, the Engineering and Transportation Department has the following comments:

1. Detailed engineering plans are required prior to City approval of construction. These plans shall be signed and stamped by a Civil Engineer registered in the State of California.
2. Construction will require a City encroachment permit and/or a franchise agreement. In addition Mojave must satisfy permitting requirement of Caltrans in East 14th Street (State Route 185). The permits must require full surface restoration including replacement of striping, loop detectors and restore other pre-construction conditions to the satisfaction of the City Engineer.
3. Due to the restricted construction area in the SPRR right of way between the tracks and walls, fences etc., damage is possible from construction equipment and related operations.
4. A significant quantity of trench excavation and backfill material will be required and a grading permit will be issued for these operations.
5. There are several City storm drain and sanitary sewer mains within the SPRR right of way, both longitudinal and crossings. These facilities need to be identified by Mojave and their locations incorporated into the design to prevent damage to City facilities and to maintain proper separation and clearance.
6. A traditional bore and jack approach with the carrier pipe inserted in a sleeve for all road crossings will be required. The sleeve must extend a minimum of 5′ beyond the ultimate street right of way as shown in the MPCS. To assure that damage to existing facilities is prevented, the new gas main shall be installed with a minimum clearance of 3 foot below the deepest existing utility. In no case shall the pipe have less than 42" of cover. Casing vents shall be installed in areas that will not pose a traffic

hazard and outside the ultimate street right of way.

Caltrans may impose additional requirements for the crossing of Davis Street (State Route 61).

7. The pipeline installation shall be detectable by metal detectors used at the road surface.

8. The pipeline shall be visibly marked at each crossing. Any required State or Federal marking requirements will be reviewed by the City to determine their adequacy.

9. The crossing of San Leandro Creek will require a City permit as well as clearances from ACFC and perhaps Army Corp of Engineers and the Dept of Fish and Game. This area must be carefully examined due to the complexities of that crossing and the crossing of the City's 30" and 24" sanitary main lines that cross the SPRR immediately north of the Creek. Detailed plans, prepared to the satisfaction of the City Engineer, are needed to properly assess the impact and protect both the creek and the sewer facilities.

10. The precise metering station location will require review for access and utility connections, if required.

11. All affected utility districts and utility companies shall be contacted by Mojave and shall sign off on the engineered project plans prior to City granting permission for construction.

UU/KCJ:kcj

cc: W. Algire
S. McCue
K. Vogeney

misc_rvw\mojave.mem

CITY OF FREMONT
Community Development Department

March 27, 1995

Mr. Michael Boyle
Federal Energy Regulatory Commission
825 North Capitol Street NE, Room 7312
Washington, DC 20426

RE: **Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS)**
Mojave Pipeline Northward Expansion Project

Dear Mr. Boyle:

The City of Fremont appreciates the opportunity to review the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed Mojave Pipeline Northward Expansion Project. We have the following comments related to Map 35 of 43:

56-1 1) The project sponsor should consider the possibility of using the Cushing Road future alignment (see attached annotated map). The actual alignment would need to be coordinated with the Catellus Development Company (property owner). Acquisition costs may be a factor if timing does not coincide with development of land by Catellus Development Company. This alignment would avoid impacting existing City streets such as Auto Mall Parkway and Fremont Boulevard.

56-2 2) The Palo Alto segment as shown on Map 35 will impact a 112 unit hillside residential subdivision scheduled for development in the summer of 1995. The developer is Ponderosa Homes, and preliminary grading has begun on the project (see enclosed Residential Activity Map, Index #610). The terrain in this area is very steep with highly expansive soils, and prone to landslides.

56-3 3) The most southerly creek shown on the map as unnamed is Scott Creek which includes a riparian corridor.

56-4 4) The interchange of Auto Mall Parkway and I-880 is presently under construction. The pipeline encroachment will require coordination and permits from the State of California.

56-5 5) The proposed alignment on Auto Mall Parkway is not completely in the public right-of-way. The area between I-880 and Fremont Boulevard is owned by Hetch-Hetchy Water District (City/County of San Francisco), Pacific Gas & Electric and the City of Fremont. The alignment beyond the Boyce Road

56-1 Thank you for your letter. We are recommending that Mojave adopt the Auto Mall Parkway route variation suggested earlier by the City of Fremont. See section 3.4 and 6.4.

56-2 Mojave would coordinate its construction with the developer during the detailed design phase. Specific mitigation for landslide-prone areas is addressed in section 5.1.2.2.

56-3 The Fremont Segment does not cross Scott Creek according to the USGS 7.5-minute Milpitas, California, topographic quad sheet. The proposed Fremont Segment follows the roadway alignment of Scott Creek Road, which is north of Scott Creek; however, the Palo Alto Segment crosses Scott Creek at MP 25.0. Impact on the riparian vegetation associated with Scott Creek would be avoided by boring beneath the creek.

56-4 We will pass this information along to Mojave. CalTrans encroachment permits are listed on table 1.4-1.

56-5 We will pass this information along to Mojave.

56-5 intersection is private ownership not under control of the public.

56-6 6) The alignment along the Southern Pacific Railroad, westerly of Fremont Meter Site B, will impact the City's restoration project for the Centerville Train Station. The initial project presently under construction will be completed in late 1995. The platform for the station relocation will follow Phase I of the project.

56-7 Additionally, it should be noted that the I-680 South Corridor Alternative (on Map C1) passes through a heavily developed residential area. The impacts on local streets will be significantly greater due to longer distances than the impacts of the proposed route.

Should you have any questions regarding these comments, please contact me at (510) 494-4438.

Sincerely,

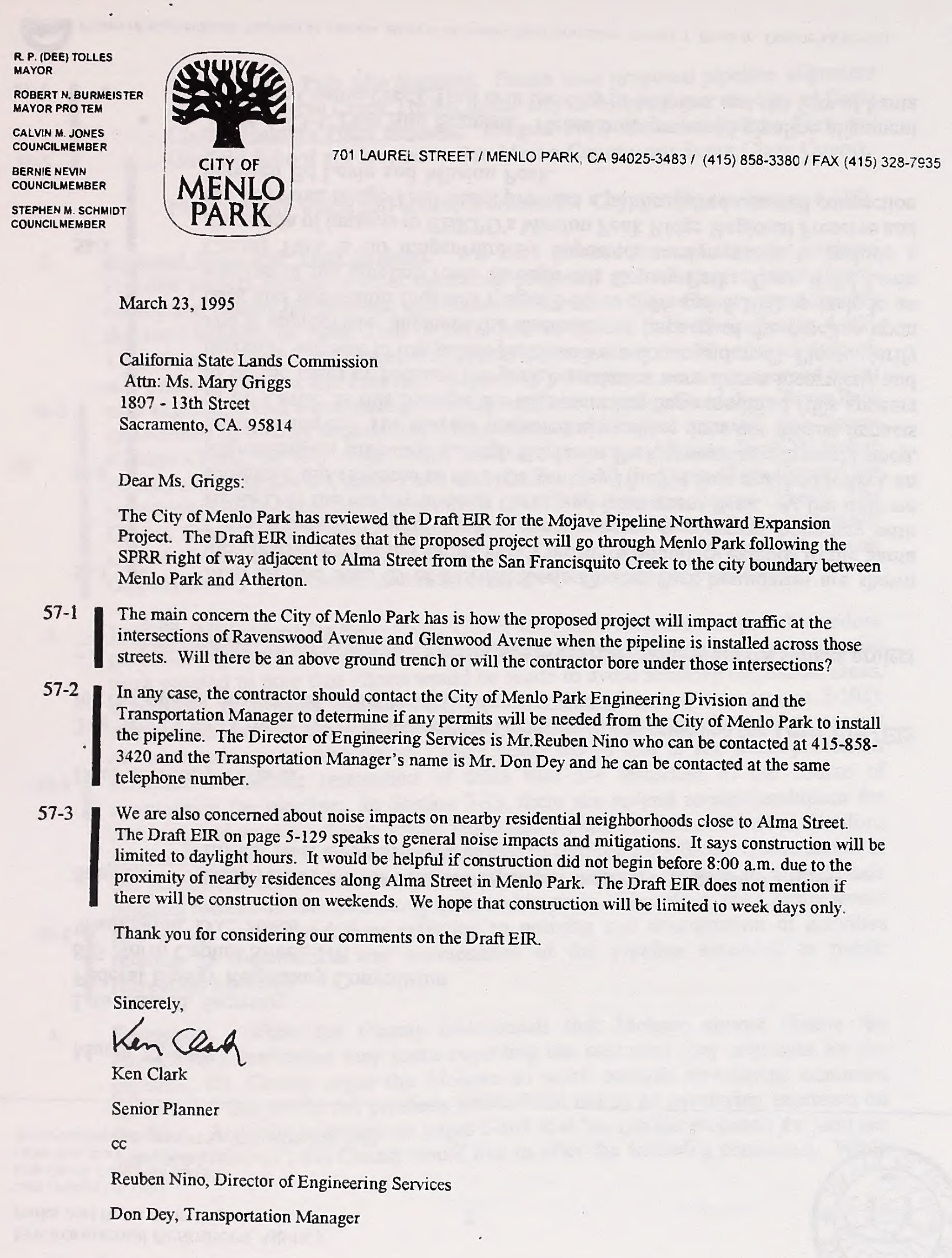
JANET HARBIN
Associate Planner

attach./enclos.
mojave.eir

cc: ✓Mary Griggs, CA State Lands Commission
City Manager
Public Works Director
Community Development Director
City Engineer
Transportation Engineer
Senior Civil Engineer Newman
Senior Planner Banda

56-6 We will pass this information along to Mojave.

56-7 Comment noted. See revised discussion of the I-680 Corridor Southward Alternative Route in sections 3.3.3.2 and 6.3.



R. P. (DEE) TOLLES
MAYOR

ROBERT N. BURMEISTER
MAYOR PRO TEM

CALVIN M. JONES
COUNCILMEMBER

BERNIE NEVIN
COUNCILMEMBER

STEPHEN M. SCHMIDT
COUNCILMEMBER

CITY OF
MENLO
PARK

701 LAUREL STREET / MENLO PARK, CA 94025-3483 / (415) 858-3380 / FAX (415) 328-7935

March 23, 1995

California State Lands Commission
Attn: Ms. Mary Griggs
1807 - 13th Street
Sacramento, CA. 95814

Dear Ms. Griggs:

The City of Menlo Park has reviewed the Draft EIR for the Mojave Pipeline Northward Expansion Project. The Draft EIR indicates that the proposed project will go through Menlo Park following the SPRR right of way adjacent to Alma Street from the San Francisquito Creek to the city boundary between Menlo Park and Atherton.

57-1 The main concern the City of Menlo Park has is how the proposed project will impact traffic at the intersections of Ravenswood Avenue and Glenwood Avenue when the pipeline is installed across those streets. Will there be an above ground trench or will the contractor bore under those intersections?

57-2 In any case, the contractor should contact the City of Menlo Park Engineering Division and the Transportation Manager to determine if any permits will be needed from the City of Menlo Park to install the pipeline. The Director of Engineering Services is Mr.Reuben Nino who can be contacted at 415-858-3420 and the Transportation Manager's name is Mr. Don Dey and he can be contacted at the same telephone number.

57-3 We are also concerned about noise impacts on nearby residential neighborhoods close to Alma Street. The Draft EIR on page 5-129 speaks to general noise impacts and mitigations. It says construction will be limited to daylight hours. It would be helpful if construction did not begin before 8:00 a.m. due to the proximity of nearby residences along Alma Street in Menlo Park. The Draft EIR does not mention if there will be construction on weekends. We hope that construction will be limited to week days only.

Thank you for considering our comments on the Draft EIR.

Sincerely,

Ken Clark

Ken Clark

Senior Planner

cc

Reuben Nino, Director of Engineering Services

Don Dey, Transportation Manager

57-1 Thank you for your comments. Both Ravenswood and Glenwood avenues are proposed to be crossed by boring beneath them. As discussed in section 5.7.2.2, local traffic flow at bore crossings is not expected to be affected.

57-2 We will pass this information along to Mojave.

57-3 We will pass this request along to Mojave. See response to comment 47-18.

County of Santa Clara
Environmental Resources Agency
Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95030
(408) 358-3741 FAX 358-3245
Reservations (408) 358-3751 TDD (408) 356-7146

March 27, 1995

Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

Subject: **DEIR/DEIS for the Mohave Pipeline Northward Expansion Project**
Docket Nos. CP93-258-000, et al

Dear Secretary Cashell:

The Santa Clara County Parks & Recreation Department has reviewed the Draft EIR/EIS for the subject project and offers the following comments:

1. **Clarification on areas of Santa Clara County's jurisdiction within the subject project area.**

58-1 - Map C1 and Map 29 of 43. Ed Levin County Park boundaries are shown incorrectly. Ed Levin County Park's northern boundary extends to the Santa Clara/Alameda County Line where it shares a common boundary with EBRPD in the vicinity of Scott Creek and Monument Peak. At the time we
58-2 submitted our response to the NOP on May 17, 1994 (see attached letter), an alignment was proposed through Ed Levin Park traversing extremely steep, unstable slopes. The current proposed alternative does not discuss impacts to Ed Levin. Is this because the alignment has been modified (this appears to be the case) or because the park boundaries were drawn incorrectly and therefore impacts to this public parkland were not considered? Please clarify and if appropriate, augment the discussion of impacts of the pipeline upon park and recreation facilities (pages 5-95 to 5-96 and 5-103) to include an analysis of the pipeline route through this County Park. Even if Ed Levin
58-3 County Park is no longer directly impacted, section needs to include a discussion of impacts to EBRPD's Mission Peak Ridge Regional Preserve and the Bay Area Ridge Trail which provides a public shared use trail connection between Ed Levin and Mission Peak.

- Table 4.7.3-1. Palo Alto Segment. Please note proposed pipeline alignment along the Coyote Creek Trail is in the City of Milpitas, not the City of Santa

58-1 Thank you for your comments. Although we used the most recent U.S.G.S. map available, it apparently does not accurately portray the Ed Levin County Park boundaries.

58-2 The commentor is correct that the route was modified as a result of the commentor's response to the Notice of Intent/Preparation initiating the EIR/EIS process. The current alignment no longer crosses Ed Levin Park.

58-3 See response to comment 22-4. Impact on and mitigation for recreational trails are generally described in section 5.7.3.2, and specifically for the Mission Peak Regional Preserve in section 5.7.3.3. The Bay Area Ridge Trail has been added to section 5.7.3.3.

58-4
- Table 4.7.3-1. **Palo Alto Segment**. Please note proposed pipeline alignment along the Coyote Creek Trail is in the City of Milpitas, not the City of Santa Clara. **Hunters Point Segment.** Burgess Park, Holbrook-Palmer Park and Garfield School are located in San Mateo County, not Santa Clara County.

58-5

- Please clarify which golf course is within the City of Milpitas (pages 4-118).

2. **Regional Bike and Trail Systems.** We were pleased to read that the Mohave Pipeline project identify several significant proposed and existing regional (multi-county and County bikeway and trail routes within Santa Clara County, most notably the Juan Bautista de Anza Trail (4-108), Stevens Creek Park Chain (pages 4-108, 118), Coyote Creek Trail (pages 4-118), and bikeway along the SP railroad right-of-way between Milpitas and Palo Alto (pages 5-95). However, we are concerned about trail alignments that were missing from this analysis, including Guadalupe River Park (mentioned in biology section only with relation to biological impacts), San Tomas Aquino Creek, the Bay Area Ridge Trail as it traverses Mission Peak Ridgeline Preserve and Ed Levin County Park, and the Bay Trail (in Santa Clara County this would involve the Palo Alto segment mile post 25-30 along the Coyote Creek). The Coyote Creek Trail is also of countywide significance as this trail will eventually extend from the Alameda/Santa Clara County line to Coyote Reservoir (approximately 15 miles are currently developed and open for public use). 58-6

3. **Impacts/Mitigations for Recreation.** Under mitigation measures proposed to reduce potential impacts to recreation by the construction and operation of the pipeline, we were pleased to note that efforts would be made to avoid sensitive recreation areas, if possible, or provide detours during construction, if appropriate (pages 5-101). Mitigations providing for restoration of trail and other recreation facilities as a result of construction were also noted. The County would like to see these provisions extended to include restoration of trails that are disturbed in the course of maintaining the pipeline. 58-7 In Section 7-13, there are several recommendations for notifying and working closely within individual private residents as well as Stanford University to schedule construction activities to minimize conflicts. Construction of the pipeline could also adversely impact public agencies' abilities to provide safe ongoing recreation activities along trails and in parks. Therefore, the County would like to see recommendations referring to noticing and coordination of activities relating to construction and maintenance of the pipeline extended to public recreation agencies. 58-8

4. **Easements.** While the County understands that Mohave cannot dictate the limitations a landowner may make regarding the easement they negotiate for the pipeline, the County urges the Mohave to work towards developing easement agreements that would not preclude recreational use as an overlaying easement on the land. As to the comment on pages 5-101 that *"no specific proposals for joint use have been received"*, the County would like to offer the following comments. While

58-4 Comment accepted. See change of location on table 4.7.3-1.

58-5 Comment accepted. See change of location table 4.7.3-1.

58-6 Comment accepted. See changes to table 4.7.3-1 to which the trails have been added.

58-7 Mojave would restore all designated trails disturbed during the course of maintaining the pipeline.

58-8 Mojave would provide advanced notice and coordinate construction and routine maintenance activities with the appropriate recreation agency.

it is true that we have not specifically requested an overlaying easement from Mohave, the County did note two instances where joint easements should be considered in the NOP. These were Coyote Creek and the SP right-of-way. In the case of Coyote Creek, we have been actively working on surface easement agreements along the Santa Clara Valley Water District levee with the City of Milpitas and the Santa Clara Valley Water District to accommodate public recreation. In this instance, Mohave would need to coordinate with the District with regard to negotiating an easement for the pipeline since they hold the land in fee title. Specific easements agreements with the District and the County would need to be developed prior to construction but after the EIR/EIS is certified.

Santa Clara County Parks appreciates the opportunity to review and comment on the subject document and hopes to be able to work out mutually beneficial arrangements to meet our customers' needs should the subject project be approved.

Sincerely,

JULIE BONDURANT
Park Planner

attachment

cc: Meredith Kaplan, National Park Service
T.H. Lindenmeyer, EBRPD
Jill Keimach, Bay Trail Project
Peter Bluhon, Bay Area Ridge Trail Project
Marc Klemencic, Santa Clara Valley Water District
Steve Burke, City of Milpitas
Sylvia Alvarez, Santa Clara County Transportation
Michael Boyle, FERC
Mary Griggs, State Lands Commission

h/transmit.hhc/jb/lillian

County of Santa Clara

Environmental Resources Agency
Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95030
(408) 358-3741 [redacted]

May 17, 1994

Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

Subject: **RESPONSE TO MOHAVE PIPELINE COMPANY NORTHWARD EXPANSION PROJECT FERC DOCKET NOS. CP93-258-000**

Dear Ms. Cashell:

We are writing in response to the Notice of Preparation for the project identified above. The proposed pipeline in Santa Clara County would pass through several points of interest to the Santa Clara County Parks and Recreation Department. Our comments on each of these areas follow:

Ed Levin County Park. The alignment proposed through Ed Levin County Park would traverse extremely steep, unstable slopes that are impassable when the soils become saturated. Construction of a pipeline in this terrain could create health and safety risks associated with the geology of this park during construction and during subsequent maintenance throughout the life of the project. There may also be sensitive, historical, archaeological and biological resources located within the proposed pipeline corridor.

We urge you to consider other alternatives across the Diablo Mountain Range along active or abandoned railroads and along highway corridors with equal thoroughness to the proposal identified in the NOP in your environmental evaluations. We believe such an evaluation may lead to a superior alternative route for this section of pipeline.

If Ed Levin County Park still appears to be the superior alternative after this environmental evaluation, then the County would suggest that mitigation measures include appropriate erosion control, appropriate construction season, control of siltation in any drainages or creeks, a revegetation program with appropriate native plant material on scarred areas, and strict reconnaissance guidelines to reduce loss of any oak woodland vegetation wetland areas, sensitive nesting sites and/or historical or archaeological resources.

Coyote Creek. The alignment proposed along the Coyote Creek corridor should take into account several factors: environmental sensitivity of the habitat along this riparian corridor; flood control improvements now under design by the Santa Clara Valley Water District; a proposed reclaimed water project that would use this corridor for its primary distribution pipe; and a multi-use pathway identified in the Parks Trails and Scenic Highways Element of the Santa Clara County General Plan. The Coyote Creek Trail will eventually extend the length of the creek. Fifteen miles have been constructed to date in the southern portion of the County. The section of the trail that would be impacted by the pipeline project has also been identified as part of the Bay Trail Project - a 400-mile trail extending around the San Francisco Bay. The County Parks Department is currently working with the Santa Clara Valley Water District, the City of San Jose, the City of Milpitas and the Bay Trail Board to complete this section of the trail. The environmental assessment mitigation and monitoring program will need to provide a construction program that will have the least impact on nesting and migratory patterns of fish and wildlife that use this creek corridor. Mitigation measures should include appropriate erosion control, appropriate construction season, control of siltation in the creek, and a revegetation program with appropriate native plant material in disturbed areas. In addition, the mitigation program should establish a plan for repairing any section of the future trail system that is disturbed during construction or while performing maintenance on the pipeline.

Southern Pacific Railroad Right-of-Way. The Santa Clara County Parks and Recreation Department and the Santa Clara County Transportation Department are currently updating their trails and bikeway plans, respectively. There has been an interest expressed, especially by the bicycle commuter community, for alternative commuter connections between Milpitas and Palo Alto. The Southern Pacific Railroad Right-of-Way would provide such an alternative. We would appreciate an evaluation as to the feasibility of overlaying a bikeway on the pipeline corridor in this section.

Please keep us informed on the progress of this project and do not hesitate to call if you have any questions or to schedule field meetings about the proposed alignments that would impact the Santa Clara County Parks and Recreation Department. Julie Bondurant, Park Planner, will continue to serve as staff contact for this project. She can be reached at (408) 358-3741, ext. 152.

Sincerely,

ALAN LA FLEUR
Deputy Director, Planning and Development

cc: Lisa Killough, Regional Park Planner, Santa Clara County
Donna Logan, Senior Real Estate, Santa Clara County
Supervisor Ron Gonzales, Board of Supervisors, Santa Clara County
Sylvia Alvarez, Transportation Agency, Santa Clara County
Tom Lindenmeyer, East Bay Regional Parks
Walt Wadlow, Santa Clara Valley Water District
Jill Keimach, Director, Bay Trail Project

h/mohapipe.eir/jb/lillian

Santa Clara Valley Water District
5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
AN AFFIRMATIVE ACTION EMPLOYER

March 27, 1995

Ms. Mary Griggs
California State Lands Commission
1807—13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

Subject: Mojave Pipeline Northward Expansion Project—Docket #'s CP93-258-000, et al.

The Santa Clara Valley Water District (District) has reviewed the Draft Environmental Impact Report (DEIR)/Environmental Impact Statement (EIS) for subject project. The District has jurisdiction over major waterways and water supply pipelines within the Santa Clara Valley. Our comments relate to impacts to these facilities within the Palo Alto segment of the Mojave Pipeline. The proposed natural gas pipeline does not cross any of the District's water supply pipelines.

Section 4.3.2 and 5.3.3 — Surface Water

59-1 In addition to the facilities listed in the DEIR, the proposed pipeline will also cross Lower
Penitencia Creek, Sunnyvale East Outfall and Barron Creek. The crossing identified in the
environmental document of Saratoga Creek should be a crossing of San Tomas Aquino Creek.
The pipeline also parallels the District's El Camino Real Storm Drain. The DEIR indicates that
crossings of these creeks will generally be by open cut methods. We suggest that where at all
59-2 possible directional boring methods be used to minimize the disturbance of the creek habitat and,
in the case of lined channels, the cost to replace the channel linings.

59-3 San Tomas Aquino, Calabazas, Adobe, Barron and Matadero Creeks are lined with concrete at the proposed pipeline crossings. Permanente Creek is in a reinforced concrete box culvert. The crossing of Coyote Creek should be by non-destructive methods so as to not disturb the District's revegetation project and the earth levees currently under construction.

Section 5.5.33 — Wetlands

This section describes the proposed pipeline alignment as it parallels Coyote Creek for close to 4 miles. The location map shows the pipe on the east side of the creek from Highway 880 to Highway 237 where it crosses and follows along the west side of the channel. The description indicates that south of Highway 237 the pipeline would be located with the leveed area.

recycled paper

59-1 Thank you for your letter. The creeks you named were added to table 4.3.2-1. The Sunnyvale East Outfall and El Camino Drain could not be located on topographic or street maps. Mojave would identify all crossings during the detailed design phase.

59-2 Mojave originally proposed to cross lined irrigation canals by boring, if feasible. This construction method would also be used to cross lined creeks. If boring is infeasible, the canal or creek would be crossed by open-cut methods when the canal or creek is empty. Upon completion, the bottom and banks of the open-cut canal or creek would be compacted and promptly restored to preconstruction conditions.

59-3 Mojave intends to directionally drill Coyote Creek which would protect the resources cited by the commentor.

59-4 The District does not permit longitudinal encroachments within its flood control facilities. The placement of utilities such as the proposed natural gas pipeline with the limits of a flood control channel is not compatible. Construction of the pipeline will impact the revegetation project; there is a potential for damage during flooding events; and maintenance and future repairs will disrupt the revegetation site. The placement of the pipeline under the District's levees is also not permitted as it impacts the structural integrity of the levee and can expose the District to additional liability should the levee fail. Additional right of way adjacent to the District's flood control right of way should be acquired for the installation of the Mojave Pipeline.

59-5 In accordance with District Ordinance 83-2, a District permit is required for the crossings and parallel installations of this proposed pipeline.

Enclosed are maps showing the District's facilities and the proposed Mojave Pipeline. Record drawings of the crossing locations are available for preparation of construction drawings if this project proceeds.

Questions may be referred to Sue Tippets at (408) 265-2607, extension 2253.

Sincerely,

for Sue Tippets

Marc J. Klemencic, P.E.
Supervising Engineer
Design Coordination Division

Enclosures: Maps showing District facilities and proposed Mojave Pipeline

cc: Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

59-4 During the public comment period, Santa Clara Valley Water District suggested the Milpitas/Coyote Creek Route Variation in response to their concerns regarding construction within their levee system for Coyote Creek and potential impact on their revegetation/restoration project. The Milpitas/Coyote Creek Route Variation would realign the Palo Alto Segment between MP 30.0 and MP 33.5 by keeping the proposed pipeline within the District's right-of-way on the east side of Coyote Creek, decreasing the construction right-of-way near the revegetation/restoration project, and moving the pipeline from the levee to a parallel existing maintenance road. Mojave analyzed this route variation; the results of the analysis are discussed in section 5.5.3.3.

59-5 We will pass this information along to Mojave. See updated table 1.4-1 which includes this permit.

State of California
The Resources Agency of California

Memorandum

To: Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Date: March 24, 1995

Telephone: (916) 654-3924

From : California Energy Commission
1516 Ninth Street
Sacramento Ca, 95814-5512

Subject : **DRAFT DEIS/DEIR FOR THE MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT (STATE CLEARINGHOUSE NO. 94032040)**

Staff of the California Energy Commission (Commission) have reviewed the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR) for the Mojave Pipeline Northward Expansion Project. Because of the pipeline's relationship to power plants which are expected to be permitted in the near future by the Commission, staff has an interest in the outcome of this project. We appreciate the opportunity to offer the following comments relating to biology, air quality and hazardous materials.

BIOLOGY:

60-1 The Commission, the Bureau of Land Management, CalTrans, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game have embarked on a multiple year cooperative monitoring study to determine the effectiveness of culverts and protective fencing in contributing to recovery of desert tortoise populations. A study site has been established between Barstow and Kramer Junction along Highway 58 in San Bernardino County. The proposed Mojave pipeline will follow an existing pipeline corridor through the study site located on the Kramer Hills 7.5 minute topographic map at Township 10N, Range 5W, SW 1/4 Section 17, SE 1/4 Section 18, NE 1/4 Section 19, and NW 1/4 Section 20.

In addition, the pipeline project proposes to locate a block valve within the study site. We are concerned that the pipeline project could interfere with this ongoing study, and believe that conflicts can be avoided. Commission staff will be happy to provide a copy of a map showing the exact location of the study site. Biologist Marc Sazaki can be contacted at (916) 654-5061 for helpful information on avoiding impacts to desert tortoises, a state and federally listed threatened species.

AIR QUALITY:

The proposed project will generate air emissions from the fugitive dust created by soil disturbance and vehicular traffic on exposed soil surfaces during construction, the exhaust of the heavy equipment involved in constructing the pipeline, from purging of the pipeline prior to its operation, and from operating the compressor station engines. The DEIS/DEIR adequately addresses air quality issues related to fugitive dust and equipment emissions during construction and operation of the

60-2 compressor station engines. However, it does not address the pipeline purging process; especially the method and equipment which will be used, the potential impact to ambient air quality from the

---

60-1 Thank you for your letter. Loop 3 would not be authorized as part of the currently proposed project; therefore, there would be no impact on your desert tortoise study site. See section 2.1.

60-2 purging process, and does not provide mitigation measures if purging results in significant impacts. This information should be included in the final DEIS/DEIR.

HAZARDOUS MATERIALS:

Commission staff commends the developer for the aggressive use of safety measures to protect the public from injury due to the potential release of hazardous materials. Based on our recent experience in evaluating a similar pipeline project[1], we offer the following comments that identify areas where additional protection may be appropriate:

1. The proposed pipeline will pass through many heavily populated areas. In order to properly assess the potential for impacts that could be associated with an accidental release from the proposed pipeline, it is necessary to evaluate not only the probability of a release, but also the potential consequences of such an event. A loss of containment along a pipeline of this size could result in the release of very large quantities of natural gas and could pose the potential for large fires and/or explosions. Such effects are associated with accidental releases from 60-3 natural gas pipelines. The DEIS/DEIR should contain an analysis of potential impacts associated with a plausible worst case release even though the likelihood of such an event is relatively low. This should include an estimate of the maximum quantity of natural gas that would be released if a major or minor rupture of the pipeline were to occur.

   The analysis should also include an estimate of the maximum zone that could be affected by both thermal and blast effects associated with a plausible worst case accidental release from the pipeline. This discussion should also include the probability of such events occurring. While the probability of such an event is low, the consequences can be very significant, including loss of life and substantial property damage, particularly in heavily populated areas. Probable accidental release should also be expressed in terms of frequency of occurrences over the length of pipeline in populated areas over the projected useful life of the pipeline, in addition to the 1,000 mile per year basis as provided in the DEIS/DEIR. Probabilities stated in occurrences per 1,000 miles per year are difficult for a non-technical audience to understand.

   Based on our recent experience in evaluating a similar type of pipeline, it is our opinion that the probability of an accidental release is not low enough to be considered trivial, particularly in light of the potential consequences. Providing such information will allow interested parties and decision makers to put the probability and consequences of such an event in perspective.

60-4 2. As noted in the DEIS/DEIR, accidents involving excavation activities are by far the largest cause of damage and accidental releases from natural gas pipelines. The DEIS/DEIR proposes that the One Call Program will be used to provide sufficient protection against damage and accidents, but there is no assessment to compare the effectiveness of such a program to other alternative measures that could ensure excavation damage is avoided to the maximum extent practicable. Other measures that could be considered include deeper burial, particularly in those areas which are in close proximity to the public.

---

[1] California Energy Commission (CEC), 1993. Final Staff Assessment SMUD Cogeneration Pipeline Project. Application for Certification (92-AFC-2P).

60-2 Procedures for pipeline purging are established to minimize the loss of natural gas and ensure that a combustible air-gas mixture is not present in the pipeline. The pipeline will be purged one segment (that length of pipeline between mainline block valves; the maximum length is 20 miles) at a time. While gas is allowed into the pipeline on the upstream end, the discharge is monitored on the downstream end with a gravitometer. When the specific gravity of the discharge gas drops from 1.0 (the specific gravity of air) to 0.6 (the specific gravity of natural gas), air is purged from the pipeline. The gas flow is allowed to continue for a short while longer to insure that no air pockets remain in the pipeline.

Three factors ensure that ambient air quality is not significantly impacted:

1. The procedure is closely monitored. Discharge gas is analyzed during the purge.
2. The procedure is performed at low pressure, so flow based on standardized conditions is small.
3. Discharged gas is widely dispersed because the pipeline is purged one segment at a time.

60-3 We disagree that this information would lead to changes in mitigation. The DOT has jurisdiction over the safety of natural gas pipelines. See response to comment 2-17.

60-4 There will be a minimum of 36" of cover over the pipeline in built-up Class 2 and Class 3 areas and 60" of cover in the railroad right-of-way. Also, see response to comment 45-60.

60-5 3. While train derailments are not a major cause of accidental release, such events have caused major releases from pipelines. The proposed pipeline will extensively utilize rail right-of-ways in heavily populated areas. Commission staff recommends deeper burial or equivalent measures to protect the pipeline from damage from train derailments in rail right-of-ways in heavily populated areas.

We appreciate the opportunity to provide you with comments. If you have questions or would like more specific information please contact Lorri Gervais of my staff at (916) 654-4678.

Robert L. Therkelsen
ROBERT L. THERKELSEN, Deputy Director for
Energy Facilities Siting and
Environmental Protection

cc: Michael Boyle, Federal Energy
Regulatory Commission

State Clearinghouse

60-5 This subject is adequately discussed in section 5.11.3. Mojave would comply with all applicable DOT codes and American National Standards Institute (ANSI) B-31.4 and B-31.8 requirements along railroad rights-of-way. Mojave would bury the pipeline deeper (5 feet) within the railroad right-of-way.

5

STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
1352 West Olive Avenue
Post Office Box 12616
Fresno, California 93778

(209) 488-4088
TDD (209) 488-4066
FAX (209) 488-4101

March 21, 1995

2135-IGR/CEQA
6-TUL GEN
Mojave Northward
Expansion Project

Ms. Mary Griggs
California State Lands Commission
1807- 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

We have reviewed the draft EIR/EIS for the above referenced project. The Mojave Pipeline Operating Company (Mojave) prepares to expand its existing pipeline system to deliver 475 million cubic feet of natural gas per day to customers in the San Joaquin Valley, Sacramento and the San Francisco Bay area. We have the following comments.

61-1 We are concerned about the pipeline crossing the State highway rights of way throughout this expansion length. If mitigated as indicated on page ES-18 (Summary of Impact and Mitigation Measures), there should not be any unnecessary closures or delays. Please contact Bob James of our Permit Branch for an Encroachment Permit regarding any State highway crossing in District 6 (from Kern to Madera County). He can be reached at (209) 488-4289.

If you have any questions, please call me at (209) 488-4153.

Sincerely,

Randall Treece

RANDALL D. TREECE, AICP
Intergovernmental Coordinator
Office of System Planning

61-1 Thank you for your letter. We will pass this information along to Mojave.

United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

OFFICE OF THE SECRETARY
FILED
95 MAR 30 AM 11:31
FEDERAL ENERGY
REGULATORY
COMMISSION

IN REPLY REFER TO:
MP-2830
LND-6.00

MAR 2 7 1995

Ms. Lois D. Cashell
Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington DC 20426

Subject: Review of Draft EIR/EIS for the Mojave Gas Pipeline Northward Expansion Project, Docket Nos. CP93-258-000

Dear Ms. Cashell:

The Bureau of Reclamation (Reclamation) has reviewed the subject draft report, and we have no objection to the Mojave Pipeline Operating Company's (Mojave) proposed project, which crosses several of Reclamation's major structures including the Friant-Kern Canal, Delta-Mendota Canal, and the Contra Costa Canal. At this time, it appears the activities will entail the review of engineering requirements and specifications, and application of easements and/or right-of-way for each crossing.

62-1 For issuance of easements over Reclamation facilities, Mojave will need to contact the Friant Water Users Authority for crossings over the Friant Division facilities, the San Luis & Delta-Mendota Water Authority for crossings over the Delta-Mendota Canal, and Contra Costa Water District for crossings over the Contra Costa Canal. Each agency will provide Mojave with an outline of the engineering requirements for crossings over/under the canals, and other requirements for issuance of an easement by Reclamation for crossings over the respective facilities right-of-ways. Arrangements would have to be worked out with Reclamation concerning these activities prior to Reclamation's issuance of easements for the various crossings.

62-2 With regard to the environmental aspect, we request additional field surveys for special status species at the intersection of the Famosa Alternative and Highway 99, and the Friant-Kern Canal. That area is known as San Joaquin Kit Fox Habitat and is extremely close to a Burrowing Owl area as well. As long as the specified mitigation measures are adhered to, we have no concern with threatened or endangered species or special habitats.

62-1 Thank you for your letter. We will pass this information along to Mojave. Also, see our new section 2.4.3 on construction procedures for utility crossings. Mojave would coordinate with the appropriate authority and the Bureau and submit plans with adequate time for review.

62-2 This area around the Friant-Kern Canal at MP 25.4 of the Famoso Alternative to the North Mainline was surveyed for sensitive and other special status species by Mojave during 1993 and 1994. Areas south of the Friant-Kern Canal along this route (MP 22.5 to MP 24.2) were not surveyed and were identified as unsurveyed in table 5.6.2-1. Mojave would be required to conduct additional or new surveys where necessary including along those segments of the proposed route that were previously inaccessible. See ARM 39.

62-3 Mojave will be required to reimburse Reclamation for all administration costs incurred for review of their crossings plans, costs for issuance of the easements, and land use fees for placement of the pipeline on Reclamation facilities. Any questions can be directed to Mr. Thomas Dang of our staff at (916) 979-2358.

Sincerely,

Franklin E. Dimick

ACTING FOR

Roger K. Patterson
Regional Director

cc: Mr. Michael Boyle
Federal Energy Regulatory Commission
Office of Pipeline Regulation, Room 7312
825 North Capitol Street NE
Washington DC 20426

62-3 We will pass this requirement along to Mojave.

SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
818 West Seventh Street,12th Floor • Los Angeles, California 90017-3435 ☐ (213) 236-1800 • FAX (213) 236-1825

March 22, 1995

Ms. Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, CA 95814

RE: **Comments on the Mojave Northward Expansion Draft Environmental Impact Report/Environmental Impact Statement (DEIR/DEIS)**
SCAG Clearinghouse #I9500061

Dear Ms. Griggs:

Thank you for the opportunity to review and comment on the DEIR/DEIS for the Mojave Northward Expansion Project. As the areawide clearinghouse for regionally significant projects, SCAG assists cities, counties, and other agencies in reviewing projects and plans for consistency with regional plans.

The attached staff comments are meant to provide guidance for considering the proposed development within the context of our regional goals and policies. While neither the project sponsor nor the lead agency is required to undertake the specific actions recommended by SCAG or other agencies through the Intergovernmental Review Process, there are requirements in state and federal laws for consistency with regional goals and plans, as noted herein.

If you have any questions regarding the attached comments, please feel free to contact Maria Souza-Rountree at (213) 236-1838. She will be happy to assist you in addressing the comments presented herein.

Sincerely,

Eric H. Roth

ERIC H. ROTH
Manager, Intergovernmental Review

Stella Mendoza City of Brawley-President, **Ed Edelman** Los Angeles County-First Vice President, **Dick Kelly** City of Palmdale-Second Vice President, **Gaddi Vasquez** Orange County- Past President. • **Richard Alarcon** City of Los Angeles, **Richard Alatorre** City of Los Angeles, **Robert Bartlett** City of Monrovia, **George Bass** City of Bell, **Ron Bates** City of Los Alamitos, **George Battey, Jr.** City of Burbank, **Hal Bernson** City of Los Angeles, **Walter Bowman** City of Cypress, **Marvin Braude** City of Los Angeles, **Susan Brooks** City of Rancho Palos Verdes, **Art Brown** City of Buena Park, **Yvonne Brathwaite-Burke** Los Angeles County, **Jim Busby, Jr.** City of Victorville, **Bob Buster** Riverside County, **Laura Chick** City of Los Angeles, **John Cox** City of Newport Beach, **Cynthia Crothers** City of Moreno Valley, **Hal Croyts** City of Lomita, **Richard Dixon** City of Lake Forest, **Doug Drummond** City of Long Beach, **Lillian Eaton** City of Yucaipa, **Joseph Esquivel** City of Lakewood, **Joho Ferraro** City of Los Angeles, **Karyo Foley** City of Calabasas, **John Flynn** Ventura County, **Ruth Galanter** City of Los Angeles, **Sandra Genis** City of Costa Mesa, **Jackie Goldberg** City of Los Angeles, **Candace Haggard** City of San Clemente, **Garland Hardeman** City of Inglewood, **Mike Hernandez** City of Los Angeles, **Nate Holden** City of Los Angeles, **Robert Jamison** City of Artesia, **Jeff Kellogg** City of Long Beach, **Abbe Land** City of West Hollywood, **John Longville** City of Rialto, **Roo Loveridge** City of Riverside, **Joho Meltoo** City of Santa Paula, **Barbara Messina** City of Alhambra, **Judy Mikels** City of Simi Valley, **David Myers** City of Palmdale, **Kathryn Nack** City of Pasadena, **Bev Perry** City of Brea, **Gwenn Norton-Perry** City of Chino Hills, **Ron Parks** City of Temecula, **Irv Pickler** City of Anaheim, **Michael Plisky** City of Oxnard, **Beatrice Proo** City of Pico Rivera, **Larry Rhinehart** City of Montclair, **Richard Riordan** City of Los Angeles, **Mark Ridley-Thomas** City of Los Angeles, **Albert Robles** City of South Gate, **Sam Sharp** Imperial County, **Marcine Shaw** City of Compton, **Rudy Svorinich** City of Los Angeles, **Tom Sykes** City of Walnut, **Laurie Tully-Payne** City of Highland,

SCAG COMMENTS ON THE MOJAVE NORTHWARD EXPANSION DEIR/DEIS

DESCRIPTION

The Mojave Pipeline Operating Company (Mojave) proposes to expand its existing pipeline system to deliver 475 million cubic feet of natural gas per day to customers in the San Joaquin Valley, Sacramento, and the San Francisco Bay Area. The project's purpose is to provide competition for the existing utility service and to offer firm, reliable, natural gas transportation service from the southwest to primarily cogeneration facilities and large industrial plants. The existing Mojave pipeline, completed in 1992, currently provides interstate natural gas transportation service from Arizona, across San Bernardino County to its terminus near Bakersfield. Portions of the proposed project in the SCAG region consist of the construction of three sections of the pipeline, the Amboy and Daggett compressor stations, and modifications to the existing Topock Compressor Station.

Mojave's anticipated in-service date is early 1996 with construction starting in mid-1995.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The recently adopted Growth Management Chapter (GMC) of SCAG's Regional Comprehensive Plan and Guide (RCPG) contains a number of policies that are particularly applicable to the San Bernardino County portion of this proposed project[1]. The following lists selected growth management policies of the GMC in italics followed by SCAG staff comments regarding the consistency of the portions of the project in the SCAG region with those policies:

- *The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phase of implementation and review.*

63-1 SCAG staff comments: The DEIR does not address demographic implications for San Bernardino County resulting from the proposed project.

- *Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.*

SCAG staff comments: The proposed pipeline route crosses three active faults in San Bernardino County. Two of these crossings are located in populated areas. According to the DEIR, the only significant impact of the operation of the pipeline that would remain after mitigation would be effects of geologic hazards on the pipeline. Consequently, the lead agency has recommended detailed

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[1] See Endnote.

63-1 Thank you for your comments. As described in section 5.8.2.2, only 40 new permanent employees would be hired; they are expected to reside in Bakersfield or Stockton. The number of temporary construction jobs in the county would be small. The proposed project would have no effect on population or housing in San Bernardino County.

geotechnical evaluations to determine site-specific mitigation measures.

- *Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.*

  SCAG staff comments: The provision of natural gas services is an important part of developing and maintaining sustainable communities. The proposed Mojave Pipeline would be one component of a complex system that could provide this public service. The DEIR states that if the proposed project does not proceed, the potential users of these facilities would not benefit from pipeline-to-pipeline competition, and could limit public access to natural gas reserves from the Rocky Mountain and Southwest production areas.

The Regional Mobility Chapter of the RCPG also contains policies pertinent to this project[2] This chapter links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. Relevant policies include:

- *The development and use of pipelines within suitable utility corridors or public rights-of-way will be encouraged.*

  SCAG staff comments: The DEIR states that Mojave proposes to bury its pipeline within or adjacent to existing railroad, surface road, pipelines, or electric transmission line rights-of-way. This is consistent with the above Regional Mobility policy.

- *The siting, routing, and construction of pipelines will be conducted so as to avoid disruptions of sensitive environments, to improve the safety and reliability of the system and to protect groundwater quality.*

  SCAG staff comments: According to the DEIR, any and all effects on groundwater and surface water resources would be less than significant or would be mitigated to less than significant levels by the proposed or recommended measures. In addition, the DEIR states that any and all effects on vegetation, wetlands, wildlife, fish, and threatened/endangered species would be less than significant or would be mitigated to less than significant levels by the proposed or recommended measures.

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[2] See Endnote.

CONCLUSION

As described in the DEIR/DEIS, the Mojave Northward Expansion Project appears to be generally consistent with the pertinent policies and objectives of the Regional Mobility and Growth Management Chapters of the RCPG. The Final EIR, however, should address possible demographic changes in San Bernardino County caused by the proposed project.

All mitigation measures associated with the project should be monitored in accordance with AB 3180 requirements and reported to SCAG.

ENDNOTE

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

SCAG is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. §134(g)-(h), 49 U.S.C. §1607(f)-(g) et seq., 23 C.F.R. §450, and 49 C.F.R. §613. SCAG is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(c). SCAG is also designated under 42 U.S.C. §7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the Air Plan, pursuant to 42 U.S.C. §7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, ***Environmental Impact Reports*** of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].

Pursuant to 33 U.S.C. §1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized ***Areawide Waste Treatment Management Planning Agency***.

SCAG is responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

SCAG is responsible (with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code Section 25135.3.

SAN FRANCISCO
BAY TRAIL

March 22, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

RE: Docket Nos. CP93-258-000, et al: DEIR for the
Mojave Pipeline Northward Expansion Project

Dear Secretary Cashell:

The San Francisco Bay Trail Project has reviewed the DEIR for the Mojave Pipeline Northward Expansion Project, and would like to submit the following comments for your information:

The San Francisco Bay Trail was authorized by the California State Legislature in 1987 as a 400-mile regional hiking and bicycle trail around the San Francisco Bay Shoreline. The Bay Trail Plan, adopted in 1989 by the Association of Bay Area Governments (ABAG), established the alignment of the trail. The Bay Trail Project is housed within ABAG, which continues to work with local jurisdictions to implement the trail.

ABAG is also the Regional Clearinghouse for environmental documents in the San Francisco Bay region, but did not receive a copy of the DEIR. Please provide ABAG with copies of all future distributions at the following address:

ABAG / Regional Clearinghouse
P.O. Box 2050
Oakland, CA 94604-2050

The Bay Trail alignment coincides with the proposed pipeline at the following locations:

- Palo Alto Segment, Mile Post 25-30, between Hwy's 880 and 237 along Coyote Creek.
- Hunters Point Segment, MP 18-20, along the CalTrain tracks on the west side of the San Francisco International Airport Property.
- Hunters Point and San Francisco Segments, spur pipeline on North Access Road, north of the San Francisco Airport. Proposed meter site is located next to an existing waterfront park.
- Oakland Segment, MP 31.7, terminus and meter site at High Street Bridge.

Administered by the Association of Bay Area Governments
P.O. Box 2050 • Oakland California 94604-2050
Joseph P. Bort MetroCenter • 101 Eighth Street • Oakland California 94607-4756
Phone: 510•464•7935

64-1 The Bay Trail Project's primary concern is the comment at p. 5-101 that Mojave's standard easement prohibits grade changes and paved roads within its right-of-way. This is a particular concern along the Coyote Creek levee, which is currently used by walkers, joggers and cyclists, and where the trail runs parallel to the proposed pipeline, and along the CalTrain/BART alignment in San Bruno. Because much of the Bay Trail is proposed to be a paved bicycle path, these alignments would require either a change in Mojave's policy on paving or close coordination in the alignment planning so that a paved trail could run parallel to, rather than over, the proposed pipeline. This raises additional concerns about future disruptions due to ongoing maintenance of the pipeline. These effects should be addressed in the EIR.

The Bay Trail Project will be happy to work with Mojave and the appropriate local agencies to coordinate the pipeline and trail alignment in the areas of concern. Please feel free to contact me at (510) 464-7904 for additional information.

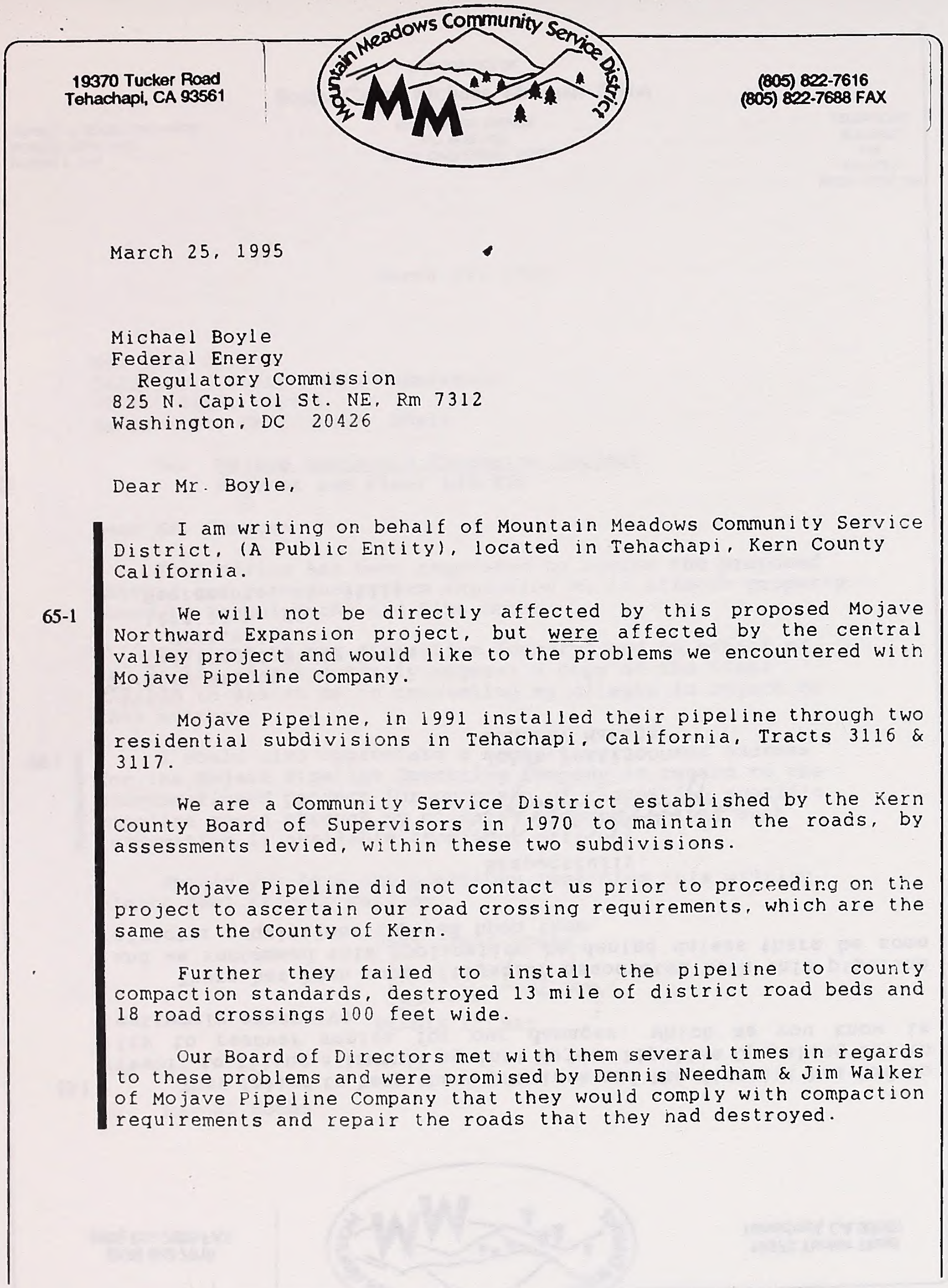
Sincerely,

Brian Wiese

Brian Wiese
Trail Development Coordinator

cc: Mary Griggs, CA State Lands Commission

64-1 Thank you for your comment. Mojave is coordinating the placement of the pipeline, along Coyote Creek with the Santa Clara Valley Water District to minimize impact to current and proposed future developments. In most cases, Mojave does not object to certain paving and developments over the pipeline provided maintenance and operation of the pipeline is not hindered or jeopardized; however, each proposed crossing or encroachment must be reviewed and approved by Mojave.



19370 Tucker Road
Tehachapi, CA 93561

Mountain Meadows Community Service District

(805) 822-7616
(805) 822-7688 FAX

March 25, 1995

Michael Boyle
Federal Energy
  Regulatory Commission
825 N. Capitol St. NE, Rm 7312
Washington, DC 20426

Dear Mr. Boyle,

I am writing on behalf of Mountain Meadows Community Service District, (A Public Entity), located in Tehachapi, Kern County California.

65-1 We will not be directly affected by this proposed Mojave Northward Expansion project, but were affected by the central valley project and would like to the problems we encountered with Mojave Pipeline Company.

Mojave Pipeline, in 1991 installed their pipeline through two residential subdivisions in Tehachapi, California, Tracts 3116 & 3117.

We are a Community Service District established by the Kern County Board of Supervisors in 1970 to maintain the roads, by assessments levied, within these two subdivisions.

Mojave Pipeline did not contact us prior to proceeding on the project to ascertain our road crossing requirements, which are the same as the County of Kern.

Further they failed to install the pipeline to county compaction standards, destroyed 13 mile of district road beds and 18 road crossings 100 feet wide.

Our Board of Directors met with them several times in regards to these problems and were promised by Dennis Needham & Jim Walker of Mojave Pipeline Company that they would comply with compaction requirements and repair the roads that they had destroyed.

65-1 Thank your for your comments. Reporting progress on the original Mojave Pipeline project is an ongoing activity in the FERC Certificate issued in Docket No. CP89-1-000 and is beyond the scope of this EIR/EIS.

(805) 822-7616
(805) 822-7688 FAX

Mountain Meadows Community Service District
MM

19370 Tucker Road
Tehachapi, CA 93561

65-1 They failed to keep these promises and the district has had to resort to filing a lawsuit against Mojave Pipeline Operating Co. to try to recover monies for our damages, which as you know is extremely expensive.

There has been much litigation associated with this pipeline and we recommend this application be denied unless there be some stricter regulations imposed upon them.

Respectfully,

JoAnn Pettijohn

JoAnn Pettijohn
General Manager

CC:Mary Griggs
California State Lands
Commission
1807 13th. St.
Sacramento, CA 95814

LAW OFFICES OF
SOUZA, COATS, MCINNIS, MEHLHAFF & HAY

ALFRED A. SOUZA (1911-1975)
ROBERT MEHLHAFF
DENNIS L. HAY

1011 PARKER AVENUE
P.O. BOX 1129
TRACY, CALIFORNIA 95376

TELEPHONE
835-3232
FAX
835-4792
AREA CODE 209

March 21, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th. Street
Sacramento, California 95814

Re: Mojave Northward Expansion Project
Request for Final EIR/EIS

Dear Ms. Griggs:

This office has been requested to review the proposed natural gas pipeline system expansion as it affects property owned by Manuel Rocha and Dina Rocha.

Pursuant to the "Executive Summary" and on behalf of the Rochas, I respectfully request a copy of the final EIR/EIS to assist me in counseling my clients in regard to this matter.

66-1 I would also appreciate a contact person and address for the Mojave Pipeline Operating Company in regard to the aforementioned project for purposes of requesting specific pipeline route through my clients' property unless such information is available from your office.

Should you have any questions regarding this writing, please feel free to call me.

Very truly yours,

Dennis L. Hay

DENNIS L. HAY

DLH:ig

cc: Manuel Rocha

66-1 Thank you for your comments. We will pass this request along to Mojave.

LAW OFFICES OF
LAURA HINRICHS
2122 NORTH BROADWAY
SANTA ANA, CALIFORNIA 92706
(714) 953-8655
FAX (714) 953-9016

March 22, 1995

Ms. Mary Griggs
California State Lands Commission
Environmental Project Manager
1807 13th Street
Sacramento, California 95814

Re: Mohave Pipeline Northward Expansion Project

Dear Ms. Griggs:

My husband and I are the owners of property which may be affected by the expansion proposed by Mohave Pipeline (hereinafter Mohave). Our orchard consists of approximately 38 acres commonly known as 9491 Hutchinson Road, Manteca, California, AP#257-230-05.

I have reviewed the draft Environmental Impact Report/ Environmental Impact Statement which you sent to me. I have also spoken with Bill Bauer, Manager, Land Resources, for Mohave. The purpose of this letter is to express our very considerable concern about the proposal.

Although my conversation with Mr. Bauer went a long way toward relieving our personal discomfort, just because the pipeline may not affect our property is no reason to fail to point out the serious detriment to other property owners and potentially to ourselves.

The proposed route for the pipeline, as I understand it, requires clearing of substantial portions of land so that the pipeline may be laid. I understand that once the pipe is in place, orchards or other crops can be replanted, if not directly over it, at least in close proximity. The problem, as I see it, is that the area surrounding our orchard consists of relatively small farms producing crops which take years to be profitable. Almonds, of course, are the chief example. It takes about five years for a new almond tree to produce sufficient crop to be economically viable. The destruction of almond trees, even if they can be replaced, is a very serious matter for the orchard owner.

Ms. Mary Griggs
Page 2
March 22, 1995

When we first heard of this plan, it appeared that the pipeline would be laid down Hutchinson Road. It further appeared that this process would require the removal of several rows of trees from our orchard. This would have a very substantial impact on us. Certainly our neighbors on the other side of Hutchinson Road would suffer as well.

This plan was particularly distressing, since it appears there are other routes that the pipeline might take, particularly down established paved roads which would all but eliminate the need to 67-1 cross private land. At this time, my husband and I strongly urge the California State Lands Commission to protect the farmers and other property owners in this area by requiring the pipeline to be placed, wherever possible, along side developed roads. Please do not cause further damage to the farmers in the local area. We have already suffered grievous losses because of the recent rains and floods and further economic hardship, where it can be avoided by the state, certainly should be.

While my primary concern has been with the route of the pipeline, I see nothing in your report that directly explains why this 67-2 pipeline is necessary. As I understand it, the gas carried in the pipeline will serve commercial enterprises. Is there really a need for this pipeline? While I applaud the entrepreneurial spirit, and the competition it engenders, I wonder what market is waiting for this gas, and what economic benefit, at what cost, will eventually be conferred upon the State of California and its citizens.

Thank you for considering this letter.

Very truly yours,

Laura Hinrichs
Attorney at Law

LH/jm

67-1 Thank you for your comments. See response to comments 8-1 through 8-5.

67-2 The FERC, in its November 18, 1994, Preliminary Determination on Nonenvironmental issues, determined that there is a need for this project. This issue is discussed in sections 1.1 and 3.1.

P.O. Box 852
Tehachapi, CA. 93581
March 26, 1995

Mary Griggs
California State Lands Commission
1807 13th St.
Sacramento, CA. 95814

Dear Ms. Griggs,

68-1 Several years ago the Mojave Pipeline crossed my property in Tehachapi. We just finalized the contract this past year. It was an upsetting experience to say the least.

The pipeline never asked permission to cross the land. They chose a route to their liking without negiotiating in any way with any of the property owners. Property owners were told what type of equipment would be used and that was that.

I read in the paper that the EIR was pushed through before a year's time. Yes, grasses that were planted did not thrive in the Tehachapi area. Oak trees were cut and to my knowledge were never replaced with any trees. There is still a noticeable path where the pipeline was laid. Roads were flooded in the county near hillsides that had been incorrectly planted and/or banked for the climate and terrain.

I feel this EIR was poorly done and not in a business-like fashion. I strongly feel that there should be some recourse to those people who have had severe damage. Further study is surely in order before final approval.
I imagine that one person's opinion is of no avail. However, I do appreciate your time in reading this letter. Now we are faced with another pipeline, Santa Fe Pacific. Tehachapi is becoming a regular pipeline highway. We property owners are not favorable. Surely there must be a more honorable way for the pipelines to conduct their businesses.

Sincerely,

Marti Sprinkle

Marti Sprinkle

68-1 Thank your for your comments. See response to comment 29-3.

Arthur D. Unger
2815 La Cresta Drive
Bakersfield, CA 93305-1719
(805) 323-5569

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, Northeast
Washington, D.C. 20426

Dear Secretary: Re: Docket Nos. CP93-258-000, et. al.

Here are my comments on the DEIR/DEIS for the northward expansion of the Mojave Pipeline.

69-1 I apologize for not mentioning Coccidioidomycosis (valley Fever) when I attended the scoping session. It is well that the Bakersfield Californian wrote it up. The FEIR should contain the results of consultation with experts from Kern County and from outside the County. Experts in the employ of Kern County could be constrained by the County Board of Supervisors, since some people, including me, think the Board is greatly influenced by the development community.

69-2 A conservation alternative should be included. The possibility that conserving energy would obviate the need for the pipeline should be discussed.

69-3 The DEIR/DEIS says the pipeline crosses two faults in populated areas. City and county planners in those two areas have probably been informed of the fault crossings and asked to comment. If not, they should be given time to solicit advice from registered geologists.

69-4 The USFWS is to give a biological opinion on this project. The comment period should not close until those interested can review that opinion.

Thank you,

Arthur D Unger

Arthur D. Unger

PS. If I may be informed when the FEIR/FEIS becomes available to the public at a local library or county office, I will not need my own copy.

69-1 Thank your for your comments. See response to comments 53-1 through 53-3 which address the Valley Fever issue.

69-2 Energy conservation has been implemented in various ways by utilities and industries throughout the country with varying degrees of success in reducing overall energy demand. We fully support the implementation of energy conservation programs that can reduce overall energy demand; however, natural gas is expected to contribute a greater share of the overall energy mix in the foreseeable future because of increasing emphasis on the use of clean-burning fuel to reduce sulfur emissions from burning other fossil fuels. The project objective is to provide pipeline-to-pipeline competition in areas currently served by one pipeline company and to provide natural gas service that is not subject to periodic curtailments. Consequently, the energy conservation alternative is not a reasonable alternative because it cannot meet the project objectives. On November 18, 1994, the FERC issued a Preliminary Determination on Non-Environmental Issues, finding that Mojave's proposed facilities: (1) are required by the public convenience and necessity under section 7(c) of the Natural Gas Act; and (2) satisfy the requirements for the issuance of a certificate under the FERC's optional expedited certificate program with the provision that only one of the alternative customer group project configurations will ultimately be built.

69-3 We believe that our analysis fairly represents the potential geologic hazards associated with construction along any of the routes considered. Each city and county crossed by the proposed pipeline was sent a copy of the draft EIR/EIS.

69-4 Our biological assessment, required by the Endangered Species Act (ESA), was submitted to the FWS in February 1995. This document should be sufficient for all Federal agencies with permit authorities. The BLM and other appropriate federal and state agencies and other interested parties have been and will continue to be deeply involved as this process proceeds.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

70-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,
Charles M Keyes

P.S. I'm opposed to your taking ones prime agriculture land where folks have to make a living.

Sincerly
Lillian Keyes

70-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

71-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,

Alice F. Machado

71-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

72-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,

Mr.+ Mrs. Toby Nies
Mr + Mrs. Charles F. Rhettah.

72-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

73-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,

Menard Roorda
Vivian Roorda

73-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

74-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,

25510 So Curtis
Ripon CA 95366

(209) 599-3654

74-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

75-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

Sincerely,

John Van Till

Van Till Farms
24924 Kincaid Rd
Manteca Ca 95337
(209) 599-3888

75-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

March 20, 1995

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

76-1 As a family farmer with prime cropland bordering the proposed off-road route of the Mojave Pipeline Company between Mohler and Manteca Roads in the West Ripon area, we support the request in the response submitted to your commission by Samuel M. McGinnis dated March 17, 1995, that this portion of the Ripon Segment be installed only on the right-of-ways of paved county roads and not within the borders of our farm.

I strongly protest using
Prime farm land for this route,
J.V.

Sincerely,

Joseph Visser
25200 S Frederick
Ripon Calif. 95366

76-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

3-22-95

In reference to the Mayore Pipeline Northward Expansion Project.

77-1 Farmers for over 60 years we endorse Sam McGennis letter. The Winters family farm 50 acres of Walnuts along Hutchinson Road. We have put our savings and livelyhood into this ranch.

Proposal of this pipeline will reduce our income and profit. We stand to loose many trees in full production. This area of Hutchinson Road is small family owned farms, many of us hold additional jobs to help us servive the years of bad weather and the rise in production costs.

This project will decrease our acreage and in return will add to our already stretched budgets.

Please reconsider and help America stand up for the Small Farmers, for we to are the future

Jacqueline Winters
25522 S Austin Ripon Ca.
95366
209-599-3959

77-1 Thank you for your letter. Please see the response to comment 52-1 and to comment letters 8 and 24 which address the Ripon area.

Zumbach Ranch

2927 HANSEN ROAD
LIVERMORE, CALIFORNIA 94550

March 20, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426
Reference Docket Nos CP 93-258-000 et al.

Dear Ms. Cashell,

We would like to comment on the draft EIR/EIS in the routing of the Palo Alto section of the proposed Mojave Pipeline that may affect our property.

As noted in our previous letter of May 15, 1994, we oppose this pipeline from going through our property. We own and operate a new family business of boarding horses. The proposed route would pass right through the middle of our boarding operation. If the pipeline went through it would seriously damage our new business.

We are also included in the South Livermore Valley Area Plan with potential for future residential development. This pipeline would substantially decrease the economic potential value of our property.

78-1 We did attend the public hearing in Livermore on February 28, 1995 in which an alternate route was discussed after the hearing ended. The alternate route discussed that evening was that the pipeline be installed beneath the asphalt in the county road right-of-way. The route near our property would be west on Tesla to Wente Street, south on Wente to Marina Ave., west on Marina to Arroyo Road, south on Arroyo to Wetmore Road. This route would eliminate the pipeline from crossing our property. We strongly agree with this alternate route of county road right-of-ways. Please consider this route which will in turn not affect property owners.

Sincerely,

Hans A. Zumbach
Karen Zumbach
Hans & Karen Zumbach
Zumbach Ranch

cc: Michael Boyle, FERC
✓Mary Griggs, CSLC
William Bauer, Mojave
Mark Bisett, Mojave

78-1 Thank you for your letter. Please see the response to comment 30-1 which discusses the new Livermore/Roadway Variation.

Livermore Area
Recreation & Park District
71 Trevarno Road, Livermore, CA 94550-2277
(510) 373-5700, *Fax (510) 447-2754*

General Manager
Douglas A. Bell

FILED
OFFICE OF THE SECRETARY
95 MAR 27 PM 12:56
FEDERAL ENERGY
REGULATORY
COMMISSION

March 20, 1995

Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

RE: DOCKET NOS. CP93-258-000, et al. MOJAVE PIPELINE NORTHWARD EXPANSION EIR/EIS

Dear Ms. Cashell:

The Livermore Area Recreation and Park District (LARPD) has reviewed the Environmental Impact Report/Environmental Impact Statement for the proposed Mojave Pipeline Northward Expansion Project through Alameda County and our District's boundary.

At the February 28, 1995 public meeting in Livermore, California. Mr. Douglas A. Bell, LARPD's General Manager, made a presentation on the pipeline expansion and what affect it will have on our District. Mr. Bell commented that the District was pleased to see that the Antioch Segment via the Brushy Peak Regional Park Preserve had been eliminated in favor of the Tracy to Antioch Segment along the railroad right-of-way. He also indicated that the District was apposed to, the Palo Alto Segment transversing Sycamore Grove Regional Park's sensitive environment and the commencing of the northward Oakland Segment within the park property.

At the present time, the District is working in conjunction with the city of Livermore, Fish & Game, Fish & Wildlife Service and a private developer to create breeding ponds for the California Tiger Salamander. The location of these ponds is aligned along the pipeline route, per map 28, MP 6.3-6.8.

79-1 We believe that two other preferred alternatives have been identified over the alignment of the pipeline through the valley. One of the preferred alternatives by the District was suggested by the City of Livermore. It recommends using the abandon Southern Pacific Railroad line right-of-way through the city. This alternative would branch off southward at Isabel Avenue to continue the Palo Alto Segment and branch northward to begin the Oakland Segment. Currently Alameda County is allowing the right-of-way to be used for other utility corridors.

✓

79-1 Thank you for your comments. These ponds would be avoided by the new Livermore/Roadway Variation. See response to comment 12-1 which discusses the variation.

79-2 The other preferred alternative by the District was offered in a letter to E. Shashis Menon of Mojave in April, 1994. The District urged the proponents to consider a road right-of-way as a preferred choice for the Palo Alto Segment alignment (See attachment). This position was re-affirmed by our General Manager at the February 28, 1995 public meeting. At the same meeting, the landowners who will be affected by the current Palo Alto Segment proposal supported the District's position and strongly urged the Federal Energy Commission and Mojave to reconsider the road right-of-ways as a preferred choice.

In addition, the proposed pipeline alignments will traverse both local and regional trail corridors (proposed by East Bay Regional Park District-EBRPD-), LARPD, City of Livermore and surrounding communities. Included in these regional trail corridors is the Juan Bautista de Anza National Historic Trail. Although the trial study was sponsored by the United States Department of the Interior-National Park Service, the local agencies of EBRPD and LARPD are maintaining vigilance to ensure preservation of the historical trail corridor alignment and secure its right-of-way for public use, when development occurs.

79-3 Any covenant between the Mojave project and the Federal Energy Regulatory Commission to allow expansion of the pipeline through Alameda County should include stipulation that the Mojave project will share its pipeline right-of-way with other modes of transportation and non-mechanized trail users. At the same time, no great undue hardship, restriction, voluminous paper work or road blocks will be placed by Mojave on the local agencies who request to use the right-of-way for other modes of transportation or non-mechanized trail uses.

79-4 If the project receives approval from FERC and SLM, local agencies-in particular EBRPD & LARPD- may provide some assistance in the location of potential off-site mitigation sites to deal with the special status species for our region.

Sincerely,

Felix Errico

Felix Errico
Assistant Planner

cc: Douglas Bell
Jerry Ingledue
EBRPD, Martin Vitz
Dennis Needham, Mojave
National Park Service, Meredith Kaplan
S.Cl.Co. P&R Dept., Julie Bondurant

Felix/Mojavepipeline

79-2 See response to comments 12-1; we have recommended that the Livermore/Roadway Variation be adopted.

79-3 See response to comment 22-3.

79-4 We will pass this information on to Mojave.

Livermore Area
Recreation & Park District

71 Trevarno Road, Livermore, CA 94550-2277
(510) 373-5700, *Fax (510) 447-2754*

General Manager
Douglas A. Bell

April 21, 1994

E. Shashis Menon
Chief Engineer
Mohave Pipeline Operating Company
P.O. Box 10269
Bakersfield, Ca 93389-0269

Dear Mr. Menon:

**Re: Gas Pipeline Project Through East Alameda County
California**

The Livermore Area Recreation and Park District has received information that the Mohave Pipeline Operating Company is in the beginning stages of preparing an Impact Statement for a large gas pipeline distribution system from the central valley over the Altamont hills, and into Alameda County. As we understand, the present project includes alternative routes of the possible gas line.

The District urges that the Environmental Impact Statement (EIS) carefully reconsider the alignment that may impact park property or ridge lines and encourages that any of the alignments follow existing and proposed road right of ways instead of crossing parks, hills and ridge lines. The District also suggests that mitigation measures include appropriate erosion control, appropriate construction season, control of siltation in creeks, appropriate native plant material on scarred areas, and modified alignment to reduce loss of any oak woodland vegetation and/or sensitive wetland areas.

Please keep us informed on the progress of this project we also request that field meetings be held between Mohave Pipeline Operating Company and recreation providers for East Alameda County, which including this district and the East Bay Regional Park District.

Sincerely,

Doug Bell

Doug Bell
General Manager

cc: Board of Directors
Jerry Ingledue
Felix Errico
EBRPD, M. Vitz, T. Lindenmeyer

Board of Directors
Al Bernal David R. Bing Larry Faltings Marlin A. Pound Alice Quinn

RIO BRAVO FRESNO · RIO BRAVO JASMIN · RIO BRAVO POSO · RIO BRAVO ROCKLIN

March 22, 1995

Federal Energy Regulatory Commission
825 North Capitol Street, N.E., Room 7312
Washington, DC 20426

RE: ADDRESS CORRECTION

To Whom It May Concern:

80-1 Your last correspondence to Rio Bravo was sent to our former address and therefore, was late in reaching us. Please update your mailing labels, files, etc. to reflect our current address as follows:

Rio Bravo
Attention: Mr. Robert V. Escalante, General Manager
2010 Main Street, Suite
Irvine, CA 92714-7204

Your cooperation is greatly appreciated.

Sincerely,

Leigh Steving

Leigh Steving
Secretary, Office Administration

leigh\addcorr

2010 MAIN STREET · SUITE 470 · IRVINE · CALIFORNIA 92714-7204 · (714) 852-0606 · FAX (714) 852-1720

80-1 Thank you for this information.

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Office of the General Manager

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

March 27, 1995

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs

Dear Ms. Griggs:

Draft Environmental Impact Report/Statement for the
Mojave Pipeline Northward Expansion Project
(Docket Nos. CP93-258-000, et al.)

We have received the Draft Environmental Impact Report/Statement (EIR/EIS) for the Mojave Pipeline Northward Expansion Project. The proposed project consists of a natural gas pipeline that would cross the California Aqueduct of the State Water Project (SWP) near the city of Tracy in San Joaquin County and near the city of Huron in Fresno County. The proposed pipeline would be bridged above the California Aqueduct at the two crossings. The comments herein represent the Metropolitan Water District's (Metropolitan) response as a potentially affected public agency.

Metropolitan delivers supplemental water supplies to 27 member agencies within its 5,135 square-mile service area in Southern California. These member agencies in turn provide water on either a wholesale or retail basis to more than 15 million people residing within about 250 cities and unincorporated communities. Metropolitan currently provides approximately 65 percent of the total water used in its service area, which covers portions of Ventura, Los Angeles, Orange, Riverside, San Bernardino and San Diego counties.

Metropolitan receives imported water from two sources: the SWP and the Colorado River. SWP water supplies originate in Northern California and are delivered through SWP facilities to contracting water agencies in Northern, Central, and Southern California. Metropolitan is one of 29 agencies which currently have contracts with the State of California to receive water supplies from the SWP. Metropolitan is the largest of these contractors and has contract entitlements to 2,011,500 acre-feet of SWP water per year, nearly half of the total contracted amount of about 4.2 million acre-feet. All of Metropolitan's water deliveries from Northern California must be delivered through the California Aqueduct of the SWP, including SWP entitlement deliveries and any other water supplies obtained through water transfers, exchanges, or purchases from the Central Valley.

81-1 Adverse impacts to operations or interruptions of water delivery through the California Aqueduct could have a significant impact on the water supply for Central and Southern California. However, the draft EIR/EIS does not recognize the California Aqueduct as a major public water supply facility. Further, the draft EIR/EIS does not address the potential impacts that may result during construction or as a result of a pipeline accident at or near the California Aqueduct.

The final EIR/EIS should recognize the importance of the California Aqueduct and that impacts on that facility caused by construction or operation of the proposed project could affect the reliability of SWP water supplies delivered to Metropolitan and 81-2 other SWP contractors. The Mojave Pipeline Operating Company should work closely with the California Department of Water Resources to ensure that the impact of the proposed project on the California Aqueduct would be minimized and that all required safety measures for the proposed project would be implemented at the two crossings.

We appreciate the opportunity to provide input to your planning process. If we can be of further assistance, please contact Mr. Dirk Marks of Metropolitan's State Water Project Branch at (213) 217-6039.

Very truly yours,

Laura J. Simonek

Laura J. Simonek
Senior Environmental Specialist

AMR

cc: Mr. Michael Boyle
Federal Energy Regulatory Commission
Environmental Project Manager
Office of Pipeline Regulation, Room 7312
825 North Capitol Street, N.E.
Washington, DC 20426

Ms. Nadell Gayou
Division of Local Assistance
Department of Water Resources
1020 Ninth Street
Sacramento, California 95814-3515

81-1 Thank you for your comment. It is certainly not our intention to minimize the importance of the California Aqueduct as a major public water supply facility. In the event a pipeline incident causes a disruption in the normal water delivery through the aqueduct, the Department of Water Resources State Water Project Emergency Action Plan would be implemented.

81-2 Mojave would work closely with the Department of Water Resources. Also, see our new section 2.4.3 on construction procedures for utility crossings. Mojave would coordinate with the Department and submit plans with adequate time for review.

MOJAVE PIPELINE OPERATING COMPANY

P.O. Box 10269
Bakersfield, CA 93389-0269
(805) 861-7300
FAX: (805) 861-7377

P.O. Box 1492
El Paso, Texas 79978
(915) 541-3165
FAX: (915) 541-5008

March 30, 1995

Ms. Lois D. Cashell,
Secretary
Federal Energy Regulatory Commission
825 N. Capitol Street, N.E.
Washington, D.C. 20426

Ms. Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, CA 95814

Re: Mojave Pipeline Company's Northward Expansion
Draft Environmental Impact Statement/
Environmental Impact Report,
Docket No. CP93-258-000, et al.

Dear Ms. Cashell and Ms. Griggs:

Enclosed for filing are comments of Mojave Pipeline Company in the above-referenced environmental document. I have also enclosed a file-stamp copy, along with a self-addressed envelope for purposes of returning a stamped copy to us.

This document is being filed in accordance with the schedule set by the California State Lands Commission, which had a filing date scheduled later than that by the Federal Energy Regulatory Commission (FERC).

Very truly yours,

Lori A. Folger/eo.

Lori A. Folger
Staff Counsel and
Regulatory Manager

LAF/eo
enclosure

cc: Robert Arvedlund - FERC
Mike Boyle - FERC
Mary Anne Mason - Andrews & Kurth

legal\expansio\dft-eis.ltr

Comment No.	Section No.	Pg. No.	Comments		
82-1	Letter of EIS/EIR	2	Mojave Pipeline Operating Company should be changed to Mojave Pipeline Company in both places it is mentioned on this page.	82-1	Thank you for your comments. Comments accepted. See change to the notice in the front of the EIR/EIS.
82-2	¶4	ES-1	Mojave Pipeline Operating Company should be changed to Mojave Pipeline Company.	82-2	Comment accepted. See change to the Executive Summary.
82-3	Geology & Soils	ES-5	In general Mojave is concerned about the language in the draft committing Mojave to specific mitigation designs without an option available to employ other appropriate mitigation method(s) based upon the results of the Phase 2 studies which could potentially indicate that no mitigation is required. Mojave suggests the following clarification to the first paragraph: Mojave will perform detailed geotechnical evaluations to determine which, if any, site-specific mitigations measures are needed.	82-3	Comment accepted. See changes to the Executive Summary.
82-4	Table ES-1	ES-6	Under the Geology subheader, "Number of potentially active faults crossed" lists 20 and responds "Yes" to question Would Remain Significant after Mitigation? Mojave suggests response to question be qualified to say: Yes, in populated areas, because after mitigation most of the faults crossed will not remain as significant impacts. It is the faults capable of large displacement faulting events in populated areas that will remain as significant impacts. Similarly the 6th entry in this section of the table could be clarified by adding: Miles of potential landslide prone terrain crossed. This entry lists 43 and responds "Yes" to question of significant impact after mitigations. Mojave suggests response to question be qualified to say Yes, in specific locations because much of the landslide prone area will be mitigated by standard practices to minimize impacts to less than significant levels.	82-4	Comments accepted. See changes to table ES-1.
82-5	Table ES-1	ES-6	There appears to be a contradiction between Table ES-1 and p. ES-11. Table ES-1 states 770 miles of sensitive species habitat will be crossed and the text on p. ES-11 states maximum project length to be 681.0 miles. Mojave believes that 681 miles is correct.	82-5	Comments accepted. See changes to table ES-1.
82-6	Table ES-2	ES-12	Under the Ground Failure Due to Liquefaction Subsidence, of Hydrocompaction subheader, Mojave suggests adding a mitigation measure to allow for shallow burial to allow pipe to float or other appropriate design methods.	82-6	We accept this statement as additional proposed mitigation. See MPM 9.

Comment No.	Section No.	Pg. No.	Comments
82-7	Table ES-2	ES-12	Automatic shut-off valves have been suggested as mitigation to be considered for fairly extreme conditions and are not anticipated as a commonly needed mitigation. Therefore, Mojave suggests qualifying the section under "Landslides" to consider automatic shutoff valves in areas of known landslide hazard that cannot be mitigated by other measures.

82-7 The EIR/EIS does not say that automatic shutoff valves will be used in all cases to mitigate geological hazards. The Executive Summary has been amended by adding the phrase "if any" to table ES-2 regarding the crossing of active faults.

SECTION 2: DESCRIPTION OF THE PROPOSED

Comment No.	Section No.	Pg. No.	Comments	
82-8	2.1	2-1	Mojave does not acknowledge the benefits in having all sections addressing the Kern River expansion removed from the final EIS/EIR. Due to the fact that all compensation/mitigation will be quantified by post-construction measurements there is little value to removing this information from the document.	82-8 Comment noted. We have not removed the Kern River expansion-related facilities from the EIR/EIS; however, we stipulate that those facilities would not be authorized as part of the currently proposed project.
82-9	2.3.1	2-12	An error exists in reference to the loops along the Mojave Mainline and East Side Lateral. These loops would require extending the 75 foot right-of-way by 20 feet.	82-9 Comment accepted. See change to section 2.3.1.
82-10	2.4.4	2-23	The EIS/EIR states, "Entry roads and parking areas would be paved, landscaping would be completed as necessary as visual and sound buffers." Mojave agrees that paving the access road and parking area may be appropriate for compressor stations which would have daily traffic. However, meter stations will be unattended and operated remotely by Gas Control; therefore, Mojave proposes that the roads and parking areas for meter stations will be graveled, where appropriate, to accommodate infrequent maintenance to the sites.	82-10 Comment accepted. See change to section 2.4.4.
82-11	2.4.5	2-23	Mojave suggests clarifying that the blow down valves will be placed between 3 and 4 feet above ground level and will be equipped with a vertical vent discharging no less than 8 feet above ground.	82-11 Comment accepted. See change to section 2.4.5.
82-12	2.5	2-24	The second full paragraph does not accurately describe the utilization of the smart pig and swab pig. Mojave suggests clarifying that the Northward Expansion will be designed and constructed so that smart pigs can be accommodated and that Mojave will perform smart pigging only in the event it is required to diagnose abnormal operating conditions or investigate other problems, not as routine operations. The swab pig is normally run prior to putting the pipeline in service to ensure it is clean. It may also be used after the pipeline is put in service if it is suspected that debris or liquids have accumulated in the pipeline. Mojave does not intend to run swab pigs on a routine basis, but will use the pigs, if conditions dictate. A smart pig is not a self-propelled device, it is propelled by the gas flow in the pipeline.	82-12 Comments accepted. See changes to sections 2.5 and 5.11.3.

SECTION 4: AFFECTED ENVIRONMENT

Comment No.	Section No.	Pg. No.	Comments		
82-13	4.1.2.2	4-3	Factual errors exist in regards to the location of the White Wolf fault in relationship to Loop 4. Loop 4 is located about 2,000 feet west of the active White Wolf Fault near MP 0.0. This fault would not be crossed by Loop 4. Table 4.1.1.1-1, Section 5.1.3.2, and Table 5.1.2-1 should be changed to correct this error.	82-13	Comment accepted. See change to sections 4.1.2.2 and 5.1.3.2 and tables 4.1.1.1-1 and 5.1.2-2.
82-14	4.1.2.2	4-4	Mojave suggests clarifying that liquefaction does not occur everywhere young alluvium is encountered.	82-14	We disagree. The EIR/EIS clearly states that soil liquefaction and settlement occur where the proposed route crosses unconsolidated fine granular material. Young alluvium is presented as one type of unconsolidated fine granular material that "may be susceptible to liquefaction." No change is required.
82-15	Table 4.1.1.1-1	4-11	New information is available relative to the Antioch Fault and its activity. Earlier studies that documented active creep along the fault have been disproved and the California Division of Mines and Geology (DMG) has recently rescinded the Alquit-Priolo Special Study zone. Therefore, Mojave suggests changing the Issue under the "Antioch Fault" subheader in both the "Antioch Segment" and "Antioch Segment (A-174)" headers as follows: Late Quaternary; recent studies show no Holocene creep, DMG has removed APSS zone.	82-15	Comments accepted. See changes to table 4.1.1.1-1.
82-16	4.4.1.1	4-55	It is stated in the draft, that "Loop 3 would be within the previously disturbed right-of-way of the Mojave Mainline and Commonline." This statement is in error and should be corrected to reflect that Loop 3 will be within the previously disturbed rights-of-way of the Commonline only.	82-16	Comment accepted. See changes to section 4.4.1.1.
82-17	4.5.1.1	4-66	It appears that the desert tortoise has inadvertently been left off the species list under Mojave Desert Scrub communities.	82-17	Comment accepted. See changes to section 4.5.1.1.
82-18	4.5.2.1	4-68	Under Vernal Pools - Table 4.4-1 is incorrectly referenced. The correct reference should be Table 4.4.2.3-1.	82-18	Comment accepted. See changes to section 4.5.2.1.
82-19	4.10	4-134	It has been brought to Mojave's attention during discussions with various air districts, that the underlying data relied on by Ecology & Environment, Inc. in preparing the EIS/EIR is incorrect. Use of this data may have significantly affected the construction related emission levels which are indicated in the EIS/EIR. Mojave is developing new data that will be provided on or before April 25. Therefore, Mojave has not commented here on the construction related emission levels indicated because Mojave expects such levels to be modified.	82-19	The construction-related emissions have been recalculated based on the new data supplied by Mojave. See sections 4.10 and 5.10.

Comment No.	Section No.	Pg. No.	Comments
82-20	4.10.1	4-134	The EIS/EIR states, "The internal-combustion engines would be used to drive backup generators only about 1 hour per week during routine maintenance or during loss of power." This statement is incorrect and is too restrictive. Mojave suggests that the statement should be changed to reflect that reciprocating internal-combustion engines that are to be used to drive backup generators for this project are restricted to maximum hours of operation by specific enforceable permit conditions.

82-20	Comment accepted. See change to section 4.10.1. According to Mojave's permit applications, the internal combustion engines would be used to drive backup generators for emergency power and routine maintenance. The internal combustion engines would not be used more than 1 hour per day except during emergencies. Their actual usage would be limited to enforceable permit conditions.

SECTION 5: ENVIRONMENTAL CONSEQUENCES

Comment No.	Section No.	Pg. No.	Comments		
82-21	5.1.2	5-2	A clarification should be made that gravel replacement in wetland habitat may result in different habitat types than currently supported by saturated sands and silts. Mojave suggests that mitigation for a geotechnical hazard take precedent over mitigating wetland communities and that any long-term impacts would be compensated as required for jurisdictional wetlands through the USACE and CDFG permits.	82-21	Comment noted. No change to the text required.
82-22	5.1.2.2	5-2	There appears to be some confusion in the draft regarding fault activity and age of faulting. Mojave's Resource Report used DMG definition from recent Fault Activity Map of California for "Late Quaternary" as being the last 700,000 years. Faults exhibiting displacement within the past 700,000 years, may not require mitigation. It should be noted that for most engineering applications, faults that have shown no activity in the last 100,000 years or so are typically not considered significant and are not usually mitigated for in most types of construction. This type of informal age category was not used or defined in Mojave's Resource Report or the Phase 1 Geotechnical Investigation but could be used in the Phase 2 geologic hazards study to distinguish significant late Quaternary faults which will be considered closely for possible mitigation from older late Quaternary faults that will not be considered for mitigation. Therefore, Mojave suggests changing this section under the heading "Seismic Faults" to reflect that for preliminary evaluation, a fault that has exhibited displacement in the last 700,000 years (Holocene or late-Quaternary) is active enough to be considered for mitigation, but may not ultimately require such.	82-22	Comments accepted. See changes to section 5.1.2.2.
82-23	5.1.2.2	5-4	Soil Liquefaction: See Comment No. 3.	82-23	See response to comment 82-3.
82-24	5.1.2.2	5-5	Subsidence and Hydrocompaction: See Comment No. 3.	82-24	See response to comment 82-3.
82-25	5.1.3.3	5-8	Mojave suggest that fault activities vary dramatically for the faults listed in this section, the Greenville Fault Zone is clearly significant and the others are likely not significant. Mojave believes the statement about the Midway and Corral Hollow faults being active within the last 100,000 years is inaccurate based on review of Fault and Activity Map Of California. Therefore, Mojave suggests that the most significant fault crossing on the North Mainline would be the active Greenville Fault Zone. Other potentially significant faults which may have been active in the late Quaternary (last 700,000 years) include the Midway Fault, the Corral Hollow Fault and the Antioch-Davis Fault.	82-25	Comment noted. No response required.

Comment No.	Section No.	Pg. No.	Comments		
82-26	5.1.4	5-10	Areas with high sensitivity for paleontological resources have already been well documented in Table 4.1.4-1 through an extensive literature review. Mojave does not agree to perform an additional "preconstruction survey" as this would not serve to further mitigate impacts. Mojave proposes to evaluate the opportunity for avoiding fossil resources on a case-by-case basis. Mojave proposes to monitor high sensitivity sites during construction and perform fossil collection in these same areas.	82-26	Comment noted; however, we disagree with your conclusions and have not changed our recommended mitigation.
82-27	Table 5.1.2-1	5-11 & 5-12	Mojave suggests the following change. Under Coast Ranges-San Francisco Bay Area subheader, North Mainline, for the Midway Fault, Corral Hollow, and Antioch/Davis faults, the Comment should be change from Late Quaternary (< 100,000 yrs) to Late Quaternary (< 700,000 yrs) displacement (per Fault Activity Map).	82-27	Comments accepted. See changes in the faults listed on table 5.1.2-1.
82-28	5.4.2	5-33	Installing trench breakers and sealing the trench bottom for all wetlands including non natural ponding areas is excessive mitigation given the impact of construction. Mojave proposes that only jurisdictional wetlands and critical habitat for sensitive species be subject to FERC Procedures, as the Procedures already provide.	82-28	The procedures only require these measures where the trench is expected to drain the wetland and prevent restoration of preconstruction hydrological characteristics; however, we have amended the condition to remove nonnatural ponding areas and seasonal wetlands that do not meet the COE criteria. See revisions to section 5.4.2 and 7.5.1.1.
82-29	5.4.3.1	5-34	Mojave requests clarification on the extent of topsoil salvage required in the Mojave Desert. It is Mojave's intent to salvage the seedbank in a separate windrow across the Mojave desert wherever clearing occurs, but not "double-ditch" over the trench. This is because desert soils are very shallow and the true "topsoil" or A-horizon will be removed by clearing. Double ditching will result in two separate piles of subsoil. Mojave proposes that in these instances, the Environmental Inspector and Revegetation Specialist determine where trench double-ditching should occur.	82-29	We find no reference to "double-ditching" over the trench where indicated; however, we provide the following summary to clarify the issue. Mojave has agreed to construct and restore its facilities in accordance with the FERC staff's Upland Erosion Control, Revegetation, and Maintenance Plan (appendix A) and the Project Revegetation Requirements (appendix B). The FERC staff's Plan stipulates that Mojave shall use topsoil segregation methods in all residential areas and when the construction right-of-way is wider than 30 feet in annually cultivated or rotated agricultural lands (except pasture), hayfields, and other areas at the landowner's request. In its application and proposed revegetation plan, Mojave stated that topsoil salvage and replacement would be the primary method of revegetation where grading and severe ground disturbance would occur. Topsoil would be salvaged from the trench, spoil pile placement areas, and any natural habitats that are graded or bladed. We have revised appendix B to more clearly describe those areas that would be subject to topsoil segregation.

Comment No.	Section No.	Pg. No.	Comments		
82-30	5.4.3.2	5-35	Mojave requests clarification on the extent of topsoil salvage required in the Central Valley grasslands. It is Mojave's intent to salvage the seedbank and up to 8 inches of topsoil within the right-of-way in natural habitats that are graded and bladed. Areas that were not bladed or graded, such as the passing lane within the temporary construction right-of-way, would not be subject to topsoil salvage. The seedbank and topsoil would be salvaged during clearing and grading and stockpiled in a separate windrow. Excavating or "double-ditching" another 8-12 inches of topsoil from over the trench is not necessary or proposed by Mojave to restore native grassland communities. Mojave proposes that topsoil would be "double-ditched" in cultivated fields only. For deep soils in agricultural lands, 12 inches of topsoil would be stripped. The same approach should apply to the chenopod scrub community.	82-30	See response to comment 82-29.
82-31	5.4.3.2	5-36	Mojave does not agree to offsite compensation of woody riparian woodlands if the 10 acre significance criteria is not met. Mojave requests clarification on how "habitat values" would be evaluated. Mojave proposes evaluation of riparian habitats after the 3 year monitoring period before compensation acreage is calculated.	82-31	The draft EIR/EIS states that offsite compensation "could be required" depending on the evaluation of habitat values. Subsequent to the draft EIR/EIS, the DFG determined that offsite compensation for permanent loss of riparian woodlands is necessary. See response to comment 49-20.
82-32	5.4.3.2	5-38	Mojave does not agree to using the FERC Staff's Procedures in appendix C when constructing through all nonnatural ponding areas containing sensitive invertebrates. There is no basis for this type construction on small ponding areas (i.e. tire ruts, ditches).	82-32	See response to comment 82-28.
82-33	5.4.3.2	5-38	In reference to avoidance of vernal pools, horizontal boring is not feasible, except where elevations can be altered to allow for placement of boring equipment below the grade of the area to be bored, for example at railroad and highway crossing. Excavating a boring pit in lowlands or depressions would require excavating a pit, which may result in more than conventional construction.	82-33	We understand the engineering limitations of boring vernal pools. The EIR/EIS states that Mojave should "attempt to" install its pipeline across vernal pools by boring if avoidance by realignment is not possible. We have amended ARM 27 to also include this modifier and to require Mojave to provide the specific reasons that avoidance of any vernal pool is not possible.

Comment No.	Section No.	Pg. No.	Comments
82-34	5.4.3.2	5-38	Mojave does not agree to both restoration of impacted vernal pools and habitat compensation. It has been stated in the draft that vernal pool creation is an experimental procedure. Mojave is aware that vernal pools have been restored recently; however, due to time constraints in commenting on the draft, Mojave has been unable to obtain this information. Mojave will provide this information as soon as possible and proposes that the measure be reworded to allow Mojave the option of restoration, with the condition that if restoration is not successful, then habitat compensation would be required. Alternatively, Mojave should be allowed to opt for compensation directly. In some instances, vernal pools of greater value than those affected may be procured, in which case the compensation would provide better quality habitat. Also, the 4:1 compensation ratio is not consistent with the 1:1 ratio listed in the Revegetation Plan on page B-15. (ARM 27)
82-35	5.6.3.1	5-58	Mojave does not agree to off-site compensation for the previously disturbed rights-of-way for Loops 1, 2 and 3. In previous agency meetings and correspondence (see CSLC letter dated September 8, 1994 in Appendix A of the Biological Assessment) it was agreed that no off-site compensation would be required for previously disturbed rights-of-way. If off-site compensation is required, Mojave requests clarification on the wording of this mitigation measure. The measure should read: "compensation ratio should be a factor of 4/25s" (not be decreased by) or it should read: "compensation ratio should be decreased **to** a factor of 4/25s." Also, please provide clarification for why this off-site compensation is even being required. Mojave has already set aside "in perpetuity" acreage for this disturbed ground, regardless of the time the right-of-way will take to recover. Perhaps Mojave should be allowed to reduce this original commitment to 25 years.

82-34 Because of the rarity and value of vernal pools, every effort should be taken to restore affected vernal pools to their original condition. Although it is true that restoration attempts on vernal pools have historically had limited success, we are aware that, due to continuing efforts in aquatic ecosystems restoration, the technology is improving and the potential for successful restoration is increasing. We believe that Mojave should be offered an incentive to invest the effort necessary to achieve successful restoration; therefore, we revised section 5.4.3.2 and ARM 27 so the required vernal pool restoration plan (developed in consultation with the USACE, FWS, and DFG) shall establish a protocol for identifying offsite compensatory acreage of "in kind" habitat at a ratio of 4:1 for those vernal pools that Mojave is unable to successfully restore. Mojave should define success criteria when designing the postconstruction monitoring program (also part of the vernal pool restoration plan). We note, however, that there may still be compensation required to mitigate the take of any federally listed species or to compensate for temporary habitat loss until restoration is successful. The ratio in appendix B has been corrected to be consistent with section 5.4.3.2 and ARM 27.

82-35 We note that the requirement to provide offsite compensation for previously disturbed rights-of-way for Loops 1, 2, and 3 is different than the mitigation required for the original project. The responsible resource agency biologists determined that compensation would be required for any and all disturbance to desert tortoise habitat, yet the compensation ratio for disturbance within the area of previous construction would be prorated based on a denominator of 25 years which represents the time anticipated for full recovery. See revised sections 5.6.3.1 and 7.5.1.1 for clarification of the compensation ratio required. Also, see comment letter No. 89.

Comment No.	Section No.	Pg. No.	Comments
82-36	5.6.3.3	5-68	Mojave does not agree to the 1.1:1 compensation ratio for the temporary impacts to habitat of San Joaquin Kit Fox in the Coast Range. Mojave has requested scientific support and rationale for this ratio from the resource agencies (see Minutes of September 12, 1994 Meeting in Appendix A of Biological Assessment). No support or rationale for the theory that the specie is more sensitive to disturbance in the Coast Range has been provided. At most, these impacts will last three years, which does not meet the significance criteria as a significant impact to vegetation. Kit fox use large areas of land and will not be excluded from using the pipeline right-of-way. Other factors, such as existing land use practice, will more likely have a greater impact on this specie and its habitat in the future. If compensation is required, it should include some consideration in the formula for the temporary nature of the impact. Due to the fact that the Fish & Wildlife Service and California Department of Fish & Game have not issued a Biological Opinion on this project to date, the compensation ratio should be revised to reflect the rational and habitat compensation formula for the same specie in the southern San Joaquin Valley (0.3:1).
82-37	5.6.3.3	5-71	Mojave requests the rationale for a habitat compensation ratio of 3:1 for the Alameda whipsnake.
82-38	5.6.3.3	5-72	In reference to the California tiger salamander, Mojave does not agree to survey a 1 mile wide corridor. There is no protocol published that supports this requirement. In addition, landowner constraints could make this an impossible task.
82-39	5.6.3.3	5-73	In reference to the California tiger salamander, Mojave proposes that the mitigation plan be prepared after the full impact has been determined. In many cases it is not possible to predict what can be accomplished by construction until construction is under way. If breeding habitat is impacted by construction, it is difficult to predict what the impact will be for certain.
82-40	5.6.3.3	5-73	In reference to the California red-legged frog, every attempt will be made to identify occupied habitat and not to construct during the breeding season. However, it should be recognized that such a long construction window, January through September, may force construction during the early winter rainy season, resulting in greater impact than loss of one season of breeding by red-legged frogs. Mojave proposes that, if possible, construction would be prohibited in occupied wetland habitat only from January 15 through September 15 if avoidance of the habitat through realignment or other means is impossible.

82-36 Comment noted. See the draft Biological Opinion in appendix I for justification of compensation required for the San Joaquin kit fox in the Coast Ranges.

82-37 A habitat compensation ratio of 3:1 for Alameda whipsnake was provided by DFG Region III personnel during informal consultation. See draft DFG Biological Opinion in appendix I.

82-38 Comment noted. See changes to section 5.6.3.3. Survey protocols for tiger salamander would be developed in consultation with the FWS.

82-39 We believe that a mitigation plan must be prepared subsequent to preconstruction surveys and prior to construction. The SLC requires that a mitigation monitoring plan be prepared for which the biologic resources sections will be submitted to the DFG and FWS for their review and approval prior to construction (see response to comment 49-64). If additional impact on listed species are identified during construction that are not identified in the mitigation monitoring plan, consultation with the DFG and FWS will be reinitiated. The requirement to assess postconstruction impacts will be included in the mitigation monitoring plan.

82-40 Comment accepted. See changes to section 5.6.3.3.

Comment No.	Section No.	Pg. No.	Comments
82-41	5.10	5-119	See Comment 19.
82-42	5.10.1.3	5-120	In reference to mitigation measures to avoid or minimize air quality impacts from construction activities, Mojave suggests that the first measure requiring "at least four workers to commute together to the construction site," be changed to read as follows: when appropriate and reasonable, at least four workers will commute together to the construction site and, when appropriate and reasonable, at least two workers will commute together to the compressor station and meter station construction sites.
82-43	5.10.1.5	5-126	An error exists on Table 5.10.1.5-1. Mojave's draft permits for the Famoso compressor station estimate pre-offset VOC emissions at 34.1 tons/year instead of 31.5 tons/year.
82-44	5.11.2	5-135	Per 49 CFR Part 191.15, a written report must be submitted within 30 days not 20 days. Mojave suggests this be changed to reflect the proper submittal period.
82-45	5.11.3	5-140 & 141	Under "Leaking Components" in Table 5.11.3-1, Mojave proposes that it will radiographically inspect 100 percent of the pipeline welds during construction, hydrotest all DOT jurisdictional facilities as required by 49 CFR Part 192 and Mojave's Operating & Maintenance Procedures, and routinely survey all DOT jurisdictional facilities in accordance with its written Operating & Maintenance Procedures and 49 CFR Part 192 requirements. Mojave does not use "smart pigs" for internal system inspections during routing operations. See Comment No. 12.
82-46	5.11.4	5-144	In reference to equipment that contacted potentially contaminated soil, Mojave suggests that the statement allow for the equipment to be decontaminated not only by steam cleaning, but also by other appropriate methods before leaving the site.

82-41	See response to comment 82-19.
82-42	Comments accepted. See change to section 5.10.1.3.
82-43	Comments accepted. See change to table 5.10.1.5-1.
82-44	Comments accepted. See change to section 5.11.2
82-45	Comments accepted. See change to section 5.11.3. See response to comment 82-12.
82-46	Comments accepted. See change to section 5.11.4.

SECTION 7: CONCLUSIONS AND RECOMMENDATIONS

Comment No.	Section No.	Pg. No.	Comments
82-47	ARM 5	7-4	Mojave proposed to file revised detailed survey alignment sheets at scales varying from 1" = 1000' to 1" = 50' depending on the area (i.e., 1" = 1000' in the desert and 1" = 50' in urban area).
82-48	ARM 9	7-6	Two (2) inspectors should not be required for all spreads. Those working in congested areas will be moving slowly; therefore, this measure should allow for one or more, depending on the type, length and duration of the specific spread. Mojave proposes to submit a construction monitoring plan, outlining staffing requirements for each spread, for approval by FERC's Director of the Office of Pipeline and Producer Regulation.

82-47 Comments accepted. See change to section 7.5.1.1 (ARM 5).

82-48 Comments accepted. As described in ARM 9, FERC's Director of the OPR may accept Mojave's plan to use fewer than two inspectors per spread.

APPENDIX:

Comment No.	Section No.	Pg. No.	Comments		
82-49	1.1	Appendix B, P. 8-2	Mojave requests clarification on salvaging. Mojave accepts windrowing with clearing and grading, but does not agree to windrowing and then double-ditching.	82-49	See response to comment 82-29 and change to appendix B.
82-50	2.4.3	Appendix B, P. 8-10	Mojave will attempt to locate and use local seed materials, wherever possible. Local seed collection companies will be informed of the localities and species needed by Mojave. Mojave prefers to not "contract collect seed" and on right-of-way collection is usually not adequate to secure adequate quantities of seed. Mojave proposes to consult with FERC and CSLC regarding seed sources, seed availability and any substitutions proposed by the revegetation specialist.	82-50	Seed for native plants should be obtained from a local source, which is defined as vegetation within 50 miles of the construction right-of-way area to be reseeded.
82-51	2.4.4	AppendixB, P. B-11 & B-12	While planting acorn seed spots is preferred and proposed by Mojave, the use of container stock may have certain benefits in special circumstances and should be an option at a compensation ratio of 10:1, as originally proposed by Mojave.	82-51	Mojave may use container stock in special circumstances such as at landowner request. These special circumstances should be addressed in the Final Revegetation Plan and would be subject to the review of the FERC's Director of the OPR and the SLC.
82-52	2.4.5	Appendix B, P. B-14	Paragraph 5 states "Mojave has agreed to avoid all vernal pools." This should be changed to "Mojave has agreed to attempt to avoid all vernal pools."	82-52	Comment accepted. See changes to section 2.4.5 of appendix B.

ASSOCIATED
PUBLIC FILE
CP93-258

Construction, Building Material Teamsters and
Miscellaneous Workers – Local #291

Affiliated with I.B.T.

14144 Doolittle Drive, San Leandro, California 94577
(510) 351-3813 FAX (510) 351-0485

March 10, 1995

Ms. Elizabeth Ann Moler
Federal Energy Regulatory Commission
825 North Capitol St., N. E., Room 9000
Washington, D.C. 20426

EXTERNAL AFFAIRS

95 MAR 17 PM 2:45
FEDERAL ENERGY
REGULATORY COMMISSION

Dear Chair Moler;

I am writing this letter on behalf of the Northern California Teamsters who have members belonging to Teamsters Local Unions throughout California, as well as pipeline construction people nationwide.

83-1 It is my understanding that Teamsters Local 386 has jurisdiction in California counties of Merced and Stanislaus, through which the Mojave Northward Expansion would pass. Teamster Local 386 and other locals in Northern California have been closely monitoring the progress of Mojave's FERC filings and have become somewhat disturbed at the slow pace of the proceedings.

The Northern California Committee is concerned with the jobs that we feel will be lost unless the issues can be resolved. We are also concerned that we may end up without a competitive alternative to P.G.E., thereby assuring that the citizens of California will continue to pay higher than necessary rates for natural gas.

The Northern California Committee supports Mojave's Northward Expansion and recommends that the Federal Energy Regulatory Commission provide the Mojave with prompt approval of its request to use cost based, market adjusted rates that will permit Mojave to move forward with its Northward Expansion Project. This will provide much needed work for Teamster members.

Sincerely,

Pete Gemma

Pete Gemma
Secreatary Treasurer
Teamsters Local 291

FERC DOCKETED
MAR 17 1995

95-50122

83-1 Thank you for your letter. Comment noted. No response required.

Env

HEALTH SERVICES AGENCY
ENVIRONMENTAL HEALTH SERVICES DIVISION

FILED
OFFICE OF THE SECRETARY
95 APR -3 AM 9:26
ENERGY
REGULATORY
COMMISSION

March 24, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426
Attention: Michael Boyle

California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
Attention: Ms. Mary Griggs
Fax number: (916)322-0525

CP93-258-000 001,002

Re: Draft EIR/EIS
Mojave Pipeline Northward Expansion Project

Dear Mr. Boyle and Ms. Griggs,

As Local Enforcement Agency (LEA) for the California Integrated Waste Management Board (CIWMB), this office is responsible, pursuant to Division 30 of the California Public Resources Code and Title 14 of the California Code of Regulations (14 CCR) Division 7, for regulating all activities located in and/or on all active **and closed** municipal solid waste (MSW) landfills within 84-1 San Mateo County. Specifically regarding closed landfills, all new postclosure activities/proposed construction on "completed" sites shall be submitted to the LEA and the CIWMB for review and comment concerning possible construction problems, hazards to health and safety, and factors which might affect the improvements. The LEA and CIWMB comments will pertain to the effect of the project on public health and safety and the environment (14 CCR Section 17796).

84-2 The Alternative 2 route of the above referenced project appears to pass though two MSW landfills, specifically the Brisbane Landfill (near Beatty) and the Sierra Point Landfill (within Brisbane/South San Francisco city limits). Excavation of MSW landfill material requires special handling and health and safety procedures due to the presence of landfill gas (including methane as well as trace toxic gases) and potential exposure to hazardous materials that may be encountered. There are also requirements for disposal of excavated material and replacement of the landfill cover/cap. A copy of the San Mateo County Environmental Health Procedures for excavations on Class III Landfills and Application Procedures for Projects on Landfills are enclosed for your information.

SAN MATEO COUNTY BOARD OF SUPERVISORS
RUBEN BARRALES • MARY GRIFFIN • TOM HUENING • TED LEMPERT • MICHAEL D. NEVIN

HEALTH SERVICES AGENCY DIRECTOR
MARGARET TAYLOR

ENVIRONMENTAL HEALTH SERVICES DIVISION DIRECTOR
BRIAN ZAMORA, MPH, REHS

590 HAMILTON STREET, REDWOOD CITY, CALIFORNIA 94063

84-1 Thank you for your comments.

84-2 The proposed route does not cross the Sierra Point landfill. Mojave would follow the required procedures in crossing the Brisbane landfill. See response to comment 2-22.

Please feel free to contact me and (415)363-4724 or Mr. Dean Peterson at (415)363-4968 with any questions that you may have. Also, please notify us of all meetings and public hearings on this project.

Sincerely,

Nancy Addison

Nancy Addison
Hazardous Materials Specialist
LOCAL ENFORCEMENT AGENCY

enclosures

cc: Brian Zamora, Director
Dean Peterson, Program Manager
Albert Johnson, CIWMB

ENVIRONMENTAL HEALTH DIVISION
SOLID WASTE SECTION

APPLICANT CHECKLIST FOR CLOSURE AND POSTCLOSURE REVIEW

Place a mark in the appropriate box for every Section listed. If you mark A, (applies), there must be an attached, (or referenced), report explaining how you intend to meet the requirement of the code section indicated. If you mark DNA, (does not apply), there must be an attached response explaining why this Section should not apply to this project.

TITLE 14, CALIFORNIA WASTE MANAGEMENT BOARD
CHAPTER 3, ARTICLE 7.8

Section	A	DNA	
17763	☐	☐	.......Time frames for closure
17764	☐	☐	.......Partial Closure
17765	☐	☐	.......Closure of Treatment Units
17766	☐	☐	.......Emergency Response Plan
17767	☐	☐	.......Security at Closed Sites
17768	☐	☐	.......Inspection Upon Completion
17771	☐	☐	.......Structure Removal
17772	☐	☐	.......Decommissioning of Environmental Control Systems
17773	☐	☐	.......Final Cover
17774	☐	☐	.......Construction Quality Assurance
17776	☐	☐	.......Final Grading
17777	☐	☐	.......Final Site Face
17778	☐	☐	.......Final Drainage
17779	☐	☐	.......Slope Protection and Erosion Control
17781	☐	☐	.......Leachate Control During C. & PC.
17782	☐	☐	.......Ground Water Monitoring During C. & PC.
17783	☐	☐	.......Gas Monitoring During C. & PC.
17783.3	☐	☐	.......Monitoring
17783.5	☐	☐	.......Perimeter Monitoring Network
17783.7	☐	☐	.......Structure Monitoring
17783.9	☐	☐	.......Monitored Parameters
17783.11	☐	☐	.......Monitoring Frequency
17783.13	☐	☐	.......Reporting
17783.15	☐	☐	.......Control
17783.17	☐	☐	.......Exemptions
17787	☐	☐	.......Recording
17788	☐	☐	.......Postclosure Maintenance
17789	☐	☐	.......Review of Postclosure Maintenance Activities
17792	☐	☐	.......Change of Ownership During Closure or Postclosure Maintenance
17796	☐	☐	.......Postclosure Land Use

NOTE: Copies of these regulations may be obtained by contacting the CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD at (916) 322-3330

SAN MATEO COUNTY ENVIRONMENTAL HEALTH DIVISION
PROCEDURES FOR EXCAVATION/BORING ON CLASS III LANDFILLS

The following information must be supplied to the San Mateo County Environmental Health Division in order to complete the permit application process for any construction/excavation activities, including geotechnical soil borings, groundwater monitoring well installations, underground storage tank removals, test pits, and/or trenches within the property boundaries of a municipal solid waste landfill.

1) A California Environmental Quality Act (CEQA) review should be conducted, if applicable. [Note: In most cases these projects are exempted under Sections 15306 or 15308 of the "State of California CEQA Guidelines". If the project requires a CEQA review, a "Solid Waste Facility Permit" (SWFP) may be required.]

2) A Health and Safety Plan must meet all applicable California Occupational Health and Safety (OSHA) standards, and must adequately address gas monitoring and safety procedures during the entire period of construction. This plan should include the capability for monitoring methane (CH4) and combustible gas, as well as oxygen (02) and hydrogen sulfide (H2S). Other gases should be monitored as necessary.

3) Designate specific excavation/boring methods; i.e. for soil borings and/or monitoring well installations, designate the technique to be used to drill/spud the bore holes. [Note: For mud rotary drilling, you must use new drilling fluids when drilling from the lowest level of refuse into the underlying soil strata.]

4) Fluids (mud etc.) must be contained and sampled to determine if they contain excessive levels of hazardous chemicals. After they are analyzed for EPA priority pollutants including Dioxane, they must be disposed of in the appropriate manner. Specify the matter in which this will be accomplished.

5) Quantify the volume of refuse, if any, which is expected to be excavated. If refuse is not expected to be excavated, identify specific procedures to be followed in the event that refuse is encountered. [Note: Depending on the volume of waste to be excavated, a SWFP may be required.] Also identify specific refuse handling procedures.

6) Specify the technique to be used to characterize excavated waste; waste material which does not fall into the Unified Soil Classification System (USCS) or an equivalent system can simply be regarded and logged as refuse, i.e. - paper, plastic, wood and other debris.

7) Specify the method to be used to replace the landfill cover/cap. [Note: Any cap replacement should be designed to meet the requirements of Title 23, Chapter 15, California Code of Regulations.]

8) Location map showing proposed construction/excavation activities in relation to refuse.

NOTE: Soil sampling may be required to determine the potential for contamination below the lower refuse layer.

COUNTY OF SAN MATEO
ENVIRONMENTAL HEALTH DIVISION
SOLID WASTE PROGRAM

APPLICATION PROCEDURE FOR PROJECTS ON LANDFILLS*

CODE SECTION: Title 14, California Code of Regulations, Chapter 3, Article 7.8, Section 17760, **"The regulations contained in this article apply to...(2) new postclosure activities that may jeopardize the integrity of previously closed sites or pose a potential threat to public health and safety or the environment."**

A complete application must include the following:

1. A letter from the owner of the property to this office, requesting a review of the project.
2. An Environmental Document (Environmental Impact Report, negative declaration etc.) for the project.
3. A description of the project which includes a site and building plan and all relevant engineering information, i.e. grading plans, excavating plans, piling design and layout, gas systems designs etc. (see enclosed checklist.)
4. A completed "Applicant Checklist for Closure and Postclosure Review" with the supporting information.
5. **A $363.00 review fee plus $76.00/hour over 4 hours.

The complete package must be submitted to:

County of San Mateo
Environmental Health Division
590 Hamilton Street
San Mateo, CA 94063
Attn: Greg Schirle, R.E.H.S.

A duplicate application package must be concurrently submitted to:

California Integrated Waste Management Board
Closed, Inactive, Abandoned Sites Branch
8800 Cal Center Drive
Sacramento, CA 95826-3268
Attn: Albert Johnson, Bob Fuji

* These procedures apply to sites which closed prior to January 1, 1988; a more extensive application is required for sites which were in operation on or after January 1, 1988.

** San Mateo County only

Rev 0992

County of
FRESNO
Public Works & Development Services Department
Richard D. Welton
Director

FILED
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95 APR -3 AM 9: 24
FEDERAL ENERGY
REGULATORY
COMMISSION

March 27, 1995

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

VIA FAX (916) 322-0525

To Whom It May Concern:

SUBJECT: Draft Environmental Impact Report/Environmental Impact Statement - Mojave Pipeline Northward Expansion Project (Docket Nos. CP93-258-000, el al.)

The above referenced Draft Environmental Impact Report/Environmental Impact Statement was circulated for review within the Fresno County Public Works & Development Services Department. We have the following comments:

85-1
1. Mojave proposes to place the pipeline in the County road right-of-way. A franchise must be obtained to allow this type of installation.
2. No blasting will be permitted in the road right-of-way.
3. The contractor selected to perform the work must have an "Encroachment Permit Performance Bond" on file with the Fresno County Public Works & Development Services Road Maintenance and Operation prior to obtaining the encroachment permit.
4. Proposed road closures and detour signing plans must be submitted to the traffic section of the Fresno County Road Maintenance & Operation Division five (5) days in advance to allow time to review the proposals.
5. The pipeline must be registered with the "Underground Service Alert".
6. Relative compaction testing shall conform with the State of California Test Method 216.

The following corrections to the text should be made:

85-2
1. Page 5-101 Roeding Park and Chaffee Zoological Gardens
2. Page 5-101 The North Mainline....from Roeding Park and Chaffee Zoological Gardens......

85-1 Thank you for your comments. We will pass these requirements along to Mojave.

85-2 Comment accepted. See changed names in section 5.7.3.3.

85-3 3. Page 5-147 Transportation Corridor in the City of Fresno (Fresno County)

4. Page 5-147 Material Recovery Facility (Madera County)

Thank you for the opportunity to comment on this project. If you have any questions I can be reached at (209) 453-5055.

Very truly yours,

Kerry L. McCants
Development Services Manager

Jeff Tweedie

Jeff Tweedie
Senior Staff Analyst

JT:TA:gah
devs&pln\planning\l-mojave.1

cc: Mr. Michael Boyle, FERC, Enviornmental Project Manager
Ms. Mary Griggs, State Lands Commission, Environmental Project Manager

85-3 Comment accepted. See changed county names in section 5.12.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

FILED
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95 APR -3 AM 9:12
FEDERAL ENERGY
REGULATORY
COMMISSION

March 27, 1995

Lois D. Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

RE: Docket Nos. CP93-258-000, et. al.

Dear Ms. Cashell:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Report/Statement (DEIR/S) for the Mojave Pipeline Northward Expansion Project. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations implementing NEPA (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

In the Northward Expansion Project, the Mojave Pipeline Operating Company would extend a natural gas pipeline system which currently runs from a compressor station in western Mojave County, Arizona, to Bakersfield, California. The purpose is to provide a new supply option in competition with Pacific Gas and Electric in Northern California; potential "core customers" are industrial and electrical co-generation power users in the Central Valley as far north as Sacramento County and in the San Francisco Bay Area. The 475 million cubic feet per day (MMcf/d) expansion of natural gas supply requires pipelines (up to 681 miles), new and upgraded compressor stations, and meter stations. Having issued a Preliminary Determination that the proposed project is warranted pursuant to Section 7 of the Natural Gas Act, FERC is now considering pipeline routing options in the DEIR/S. The State Lands Commission, co-lead for compliance with the California Environmental Quality Act, will evaluate right-of-way across state lands. Additionally, the Bureau of Land Management is a cooperating agency, and will determine right-of-way involving federal lands.

The major portion of the Project would extend a main pipeline north from the Bakersfield through the Central Valley, to a point near Martinez (290 miles, "North Mainline"); a "Sacramento Mainline" would extend another 63 miles to southwest Sacramento. The DEIR/S also evaluates pipeline routings branching from the mainline to the San Francisco Bay Area and to potential Central

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Valley customers. Near Bakersfield and in the desert east of Bakersfield four loops off the existing Mojave mainline are also evaluated; several of these would not be needed at the scale proposed if the Kern River Gas Transmission Company, which shares some facilities in common with Mojave, does not expand its capacity.

86-1 In general the DEIR/S demonstrates a conscientious effort to identify and evaluate pipeline routes which will minimize additional, long-term environmental disturbance and which will be acceptable to the localities affected. We note, for example, that approximately 80% of the proposed route follows existing rights-of-way. However, because the Expansion Project faces several yet-unresolved routing and impact issues, which will need to be addressed in the Final EIR/S, we have rated project and DEIR/S EC-2 (Environmental Concerns - Insufficient Information; please see attached rating sheet). Among the environmental impact and mitigation issues which should be covered more completely are: compliance with Clean Water Act Section 404; determination of conformity of the project with State Implementation Plans for air quality, pursuant to the federal Clean Air Act; consultation with the U.S. Fish and Wildlife Service with respect to endangered species protection; and compliance with the National Historic Preservation Act and other federal laws protecting Native American cultural and religious resources. Please refer to the enclosed detailed comments.

We appreciate the opportunity to comment on the proposed project. At the time the Final EIR/S is filed with our Washington, D.C. office, please also send two copies to the EPA Region Office of Federal Activities (letterhead address, mail code E-3). If you have any questions or wish to discuss our comments, please contact me at 415-744-1584, or call Carolyn Yale at 415-744-1580.

Sincerely,

David J. Farrel, Acting Chief
Office of Federal Activities

Enclosure:

cc: Robert C. Hight, Executive Officer
California State Lands Commission

ID2166;mojave.dei

86-1 Thank you for your comments. We used the best available information in evaluating potential impact associated with the construction of the project and have concluded that our recommended mitigation would minimize or eliminate the majority of significant impact identified.

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION

Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommend for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1-Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Clean Water Act Section 404

The Draft Environmental Impact Report/Statement (DEIR/S) contains a very incomplete discussion of potential impacts to aquatic resources protected pursuant to Clean Water Act Section 404, and the appropriate mitigation measures. As the DEIR/S acknowledges, a delineation of jurisdictional "waters of the United States" has not been done yet, and no determination has been made regarding whether individual or nationwide Section 404 permits would be required (p. 5-32). These are matters which could appreciably affect the design of the project and required
86-2 mitigation measures. Jurisdictional delineation and compliance with the appropriate Section 404 permitting requirements should be documented in the Final EIR/S.

The DEIR/S does indicate that the proposed project, regardless of routing, would cross significant amounts of "wetlands" (acreage estimated from U.S. Fish and Wildlife Service National Wetlands Inventory Maps). For example, Mojave's preferred route for the San Francisco Area Northward segment would traverse several miles of marsh in the vicinity of Suisun Bay (p. 4-63); also, the project as a whole requires many dozens of stream
86-3 crossings. If the Corps of Engineers determines that one or more "individual" permits are required, EPA will review the proposed project for compliance with our 404(b)(1) Guidelines (40 CFR 230). These Guidelines emphasize avoiding impacts on the aquatic ecosystem (for example, through alternative routings) before addressing mitigation measures such a FERC requires in its "Wetland and Waterbody Construction and Mitigation Procedures" (Appendix C).

The DEIR/S affirms that impacts to vernal pools would be avoided by realignment of the right-of-way (p. 5-64). In doing so, the area of protection should be sufficient to retain hydrologic conditions supporting the pools.

The DEIR/S makes the misleading suggestion that retaining equal acreage of "wetlands" by mitigating direct impacts accomplishes adequate mitigation (p. 5-32). The important principle is that wetland values and functions should not be diminished: This may require mitigation which includes off-site compensatory habitat as well as on-site mitigation measures if impacts to wetlands are unavoidable. We note that the DEIR/S discusses wetlands mitigation only in terms of practices to reduce and rectify direct impacts, such as those unavoidably incurred in stream crossings. The Final EIR/S should record the full extent of mitigation required in Section 404 permits for the project.

Air quality

Pursuant to the requirements of Section 176(c) of the Clean Air Act [42 U.S.C. Section 7506(c)], Federal agencies are prohibited from engaging in or supporting in any way an action or

86-2 We disagree. The draft EIR/EIS did discuss the potential impact on wetlands. As stated in section 4.4, the estimated acreage of wetlands that could be affected by the project was based on aerial photographs and FWS National Wetland Inventory Maps. Pending verification by the field delineations, we also considered as wetlands several habitat types that may not meet all of the Federal jurisdictional criteria. Because field delineations frequently result in a reduction in affected wetland acreage, the EIR/EIS presents a very conservative estimate of potential impact. Field delineation of wetlands is one of the surveys that cannot be reasonably completed until after final FERC certification when Mojave would know which route or alternative route would actually be authorized and would be able to gain full access to all properties. The FERC staff's Wetland and Waterbody Construction and Mitigation Procedures (appendix C) require Mojave to provide written notification to the USACE of the proposed construction activities and to comply with Section 404 nationwide permit program terms and conditions. Section 5.4.2 adequately discusses this permitting process.

86-3 We have taken all practicable measures to avoid or minimize impact on wetlands. If our recommended alternative routes and mitigation measures area adopted, the project would not result in the permanent loss of wetlands because the mitigation is designed to restore wetland functions and values. We conclude that the impact on waters of the U.S. would be minimized to the maximum extent practicable as required by Section 404(b)(1); therefore, we do not believe that any offsite compensatory mitigation is necessary or justified. We note, however, that other regulatory agencies with permitting authority for construction in wetlands may adopt a different philosophy regarding mitigation.

activity that does not conform to an applicable State
implementation plan. Conformity to an implementation plan means
conformity to an implementation plan's purpose of eliminating or
reducing the severity and number of violations of the national
ambient air quality standards and achieving expeditious attainment
of such standards. In the case of the proposed Northward
Expansion Project, there is potential for significant emissions of
CO, NOx, PM-10, and VOCs during the construction phase in major
sections of the pipeline route (pp.5-121-122). Although the
DEIR/S discusses the Clean Air Act conformity provision generally,
it indicates that FERC is uncertain about the applicability of
conformity requirements to construction phases of projects (p. 4-
86-4 139). The conformity regulations which EPA has promulgated
(codified at 40 C.F.R. Section 93.150 et seq.) do not exempt
construction activities from conformity determinations if
emissions are above de minimus levels.

86-5 We recommend that FERC review the regulations, including the
de minimus levels, reporting and public participation requirements
(Sections 93.155 and 93.156), and criteria and procedures for
Federal agencies to follow for actions required to have conformity
determinations (Section 93.158). A discussion of the
86-6 applicability of conformity requirements for the Northward
Expansion Project should be provided in the Final EIR/S. If you
have further questions regarding conformity requirements, please
contact Bob Pallarino in EPA's Air and Toxics Division (415-744-
1212).

Threatened and endangered species

The DEIR/S states that the proposed project could affect
approximately 35 special status species which are found either
along the proposed right-of-way or close by (p. 5-54). At this
time, FERC has consulted only informally with the U.S. Fish and
Wildlife Service and California Department of Fish and Game; a
Biological Assessment has not been prepared yet. The DEIR/S
recognizes that the Assessment and Biological Opinion from the
86-7 Service need to be completed. We recommend that the conclusions
from this work, and any project changes required to protect
special status species, should be reported in the Final EIR/S.

Other

1. In evaluating routes for a pipeline extending north to Antioch in the San Francisco Bay Area, the staff have recommended an "environmentally preferable" alternative which would follow the Southern Pacific Railroad right-of-way. Compared with Mojave's proposal and several other options, the railroad right-of-way alignment appreciably reduces exposure to geologic hazards and impacts to wetlands. The staff's recommendation does appear to have substantial merit when contrasted with the other options presented in the DEIR/S. Since the route proposed by Mojave is estimated to cross over one mile of wetlands, Clean Water Act

86-4 Thank you for this guidance.

86-5 Thank you for this guidance.

86-6 Comment accepted. We have added new material to section 5.10.1.4 to address conformity analysis requirements for this project.

86-7 Our Biological Assessment for the project was submitted to the FWS on February 2, 1995. This document should be sufficient for all Federal agencies with permit authorities. The FWS has issued a draft Biological Opinion. In the EIR/EIS we have presented mitigation measures for Federal and state sensitive species that could be potentially affected by the project. These mitigation measures are provided even though all surveys cannot be completed until after final FERC certification when Mojave would know which route or alternative route would actually be authorized and would have full access to all properties. These mitigation measures are presented to ensure that impact on individual species is minimized if individuals of those species are found as a result of surveys conducted after certification but prior to the initiation of construction.

Section 404 permitting will probably be a significant
86-8 consideration in route selection. The Final EIR/S should document
that evaluation and selection of a preferred route for the "Bay
Area Northward" pipeline comply with the requirements of Clean
Water Act Section 404.

2. In response to local concerns, FERC and the State Lands
Commission have evaluated 12 alternative alignments for pipelines
into the San Francisco Bay Area. Moreover, the DEIR/S
specifically requests additional information on the feasibility
and environmental impacts of the alternatives (p. 3-29). Although
the DEIR/S addresses other portions of the proposed project from
the perspective of "environmental justice," it has not done so for
these Bay Area alignments. We note that in some instances
localities have suggested routing the pipeline through developed,
populated areas in preference to routes through agricultural
86-9 areas. We strongly recommend that these alternatives be
considered in light of potential impacts on low-income and
minority populations. This analysis should include exposure to
long-term safety risks.

86-10 3. Compliance with the National Historic Preservation Act Section 106, relating to historic properties, has not been established in the DEIR/S. Similarly the DEIR/S does not demonstrate that the proposed project would comply with federal statutes protecting Native American cultural and religious resources (p. 5-114). We recommend that the necessary resource investigations and consultations be completed prior to issuing the Final EIR/S; the results should be recorded in the Final EIR/S.

86-8 Comments accepted. See changes to section 6.1, which more fully discusses impact to wetlands.

86-9 We believe that, with the implementation of Mojave's proposed mitigation measures, construction and operation of the project would not result in a significant impact on urban and residential areas. As with the other portions of the project, our analysis of the Bay Area alternatives did not identify any disproportionately high and adverse human health or environmental effects on minority or low-income communities or Native American Programs.

86-10 We disagree with this comment. The EIR/EIS clearly demonstrates that the proposed project would comply with the American Indian Religious Freedom Act and the portions of the National Historic Preservation Act (NHPA), specifically Section 101, which protect Native American cultural and religious resources. As stated in section 4.9.2.2., Mojave contacted all applicable Federal and state recognized Native American tribes and individuals referred by the California Native American Heritage Council and consulted with the tribes and individuals to identify resources of cultural or religious significance in the project area. In section 5.9.3, we acknowledge that compliance with section 106 of the NHPA was not complete at the time of the issuance of this final EIR/EIS; however, we intend to condition Mojave's Certificate so that construction would not commence until the Section 106 process has been completed (see ARM 47). The NEPA and Section 106 processes allow for conditional Certificates, which require work to be completed after the issuance of a FERC Certificate but prior to construction.

Contra Costa County
FLOOD CONTROL
& Water Conservation District

J. Michael Walford
ex officio Chief Engineer

Milton F. Kubicek, Deputy Chief
255 Glacier Drive, Martinez, CA 94553-4897
Telephone: (510) 313-2000
FAX: (510) 313-2333

March 27, 1995

Mary Griggs
California State Lands Commission
1807-13th Street
Sacramento, CA 95814

File: 3055-00

Dear Ms. Griggs:

We have reviewed the Draft Environmental Impact Report for the Mojave Pipeline Northward Expansion Project, Docket Nos. CP93-258-000, et al and submit the following comments:

87-1 1. In Contra Costa County, the owners of the Mojave Pipeline Expansion Project need to obtain a drainage permit for all gas line crossings of natural or manmade watercourses in the unincorporated areas of the County as well as a flood control permit for all crossings of existing drainage and flood control facilities owned by or located inside the right of way of the Contra Costa County Flood Control and Water Conservation District (Flood Control District). The project owners are advised to contact John Capozzo of our Application and Permit Center, telephone 510/646-1607, 651 Pine Street, Martinez, 94553 to determine the specific requirements of the permit application.

87-2 2. To streamline the permit application requirements, the Flood Control District may issue an overall drainage permit for all gas line crossings in the unincorporated areas and an overall flood control permit for all gas line crossings within our right of way. The applicant needs to submit more detailed drawings of each of the watercourse crossings. The plan view should show the assessor parcel numbers of all properties, the topography, and if applicable, the location of the nearest road or other land features that will assist us in pinpointing the crossing location.

87-3 The cross sectional view should show actual elevations in the area and the proposed depth of the gas line. The minimum depth of the pipe should be at least 5 feet below the lowest invert of the watercourse at the location of the crossing. The 4 ft. minimum depth shown on Figure 2.4.2-2 on page 2-21 is not acceptable. For watercourses where there are planned future improvements, the gas line crossing may have to be installed at a much deeper elevation to accommodate the future improvements. We will be able to tell the applicant about the required depth of embedment after we have reviewed the detailed drawings of each crossing.

87-4 3. For gas line crossings located within the right of way owned by Contra Costa County or the Flood Control District, the applicant should contact Mr. Paul Gavey of the Contra Costa County Public Works Department, Real Property Division, telephone 510/313-2221, 255 Glacier Drive, Martinez, 94553 to determine the requirements for obtaining an easement for these facilities.

87-1 Thank you for your comments. We will pass this information along to Mojave and we have added this permit requirement to table 1.4-1. It is expected that further site-specific mitigation measures would be required by other permitting agencies. Any state or local permits or approvals with requirements that would be in conflict with the FERC Certificate or that would not allow Mojave to meet their obligations under the FERC Certificate would be preempted by its Federal status.

87-2 We will pass this request along to Mojave.

87-3 We will pass this information along to Mojave.

87-4 We will pass this information along to Mojave.

87-5 4. The EIR/EIS Distribution List on Appendix 6 does not include the City of Brentwood as one of the local agencies provided with the EIR documents. We recommend that comments from the City of Brentwood be solicited. The core pipeline alignment as shown on Map 13 of 43 is located within the planning area boundary of the City of Brentwood as shown in the City's 1993-2010 General Plan documents.

87-6 5. We need to see more detailed drawings (plan & profile) for the Antioch Segment Alternative A174 shown on map 14a in Volume II of the EIR. It appears on the map that the gas line alignment may impact our planned improvement for West Antioch Creek located on the north side of the Southern Pacific Railroad right of way, approximately Sta 70+00 in our Drainage Area 55 Boundary map and Drainage Plan. The same gas line may also impact the most downstream flood plain and our proposed improvements for East Antioch Creek north of Thirteenth Street in Antioch.

87-7 6. We would like to see the site layout of the Antioch meter site A of the Antioch segment shown on map 14a in Volume II because of its proximity to the West Antioch Creek outfall line to the San Joaquin River.

87-8 7. We need to see more detailed drawings for the segment of the proposed Mojave mainline from Willow Pass Road (approximately station 278 in map 14 in Volume II) to Nichols Avenue, 2700 feet west of Shore Acres in the Bay Point area.

The proposed gas mainline may affect our future plans for the following drainage facilities.

- Line A outfall of Drainage Area 48B at approximately Sta 0+00 to sta 10+00 of the drainage plans
- Line A of Drainage Area 48C at approximately sta 5+00 to sta 10+00 of the drainage plans
- Line AA, of Drainage Area 48D at approximately Station 1+20 to sta 1+70 of the drainage plans.

These drainage area entities were established by the Flood Control District, in cooperation with the local governments, in order to construct needed flood control facilities in specific areas of Contra Costa County.

87-9 8. Section 2.4.2, Construction Procedures for Road, Rail, Waterbody, and Wetland Crossings on page 2-19 states that at all minor and intermediate stream crossings the contractor will stockpile excavated material at least 10 feet from the stream bank and at least 50 feet from the stream bank of major streams. The applicant should contact the County Maintenance

87-5 We have contacted the City of Brentwood and addressed issues of concern in the final EIR/EIS.

87-6 We will pass this request along to Mojave.

87-7 We will pass this request along to Mojave.

87-8 We will pass this request along to Mojave.

87-9 We will pass this suggestion along to Mojave.

87-9 Division to schedule these activities to avoid conflict with their regularly scheduled maintenance works for flood control and drainage facilities. The applicant may contact David Reza of the County Maintenance Division, telephone 510/ 313-2000, 2475 Waterbird Way, Martinez 94553.

87-10 9. In Table 5.3.3.2-1 on page 5-26 of Volume I of the EIR, rivers and streams where directional drilling is proposed are listed. In Map 15 of Volume II, the gas mainline is also shown crossing the Walnut Creek Flood Control Channel just to the west of Martinez Meter Site A. This channel is approximately 300 feet wide upstream of the A.T. & S.F. railroad tracks. We recommend that in addition to the Pacheco Creek Flood Control Channel, the gas line crossing of Walnut Creek should also be done by directional boring and that the name of the Walnut Creek Channel should be added to Table 5.3.3.2-1. Both these facilities are owned and maintained by the Flood Control District.

10. Any proposed revegetation of disturbed riparian areas as discussed in Section 5.3.3.1, General Impact and Mitigation, on page 5-23 should also be reviewed and approved by the Flood Control District.

87-11 11. The Mojave mainline will traverse the proposed Cowell Ranch development located southwest of the City of Brentwood between Deer Valley Road and Marsh Creek Road. Mojave is advised to contact the developer for comments. Mojave may contact Gary Wesley Craft, consultant for Cowell Ranch, telephone 510/283-4981, 3650 Mt. Diablo Blvd., ste 230, Lafayette, CA 94549.

Please call Mario Consolacion at 510/313-2257 if you have questions.

Very truly yours,

Tom Williams

Tom Williams
Associate Civil Engineer
Flood Control Engineering

TW/MC:mg
g:\fldctl\work\gri3055.t3

cc: M. Morton, Flood Control Engineering
P. Gavey, Real Property
D. Reza, Maintenance
J. Capozzo, Permit Center
3056-00, 3048-00, 3048B-00, 3048D-00
T. Wooten, City of Brentwood
M. Boyle, FERC

87-10 Comment accepted. See change to table 5.3.3.2-1 to which Walnut Creek Channel has been added. Site-specific crossing and restoration techniques can be determined during the encroachment permit process.

87-11 This issue is discussed in section 5.7.1.3.

STATE OF CALIFORNIA—THE RESOURCES AGENCY
PETE WILSON, *Governor*

THE RECLAMATION BOARD
1416 Ninth Street, Room 1148
Sacramento, CA 95814-5509
(916) 653-5434 FAX: (916) 653-9745
Permits: (916) 653-5726 FAX: (916) 653-5805

MAR 2 7 1995

Ms. Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

We have reviewed the Draft EIR for the Mojave Pipeline Northward Expansion Project, SCH No. 94032040, Docket Nos. CP93-258-000, et al, to deliver natural gas to customers in the San Joaquin Valley, Sacramento, and the San Francisco Bay area, and we have the following comments:

88-1 The proposed pipelines are located within various counties, and are in or adjacent to floodways and levees over which the Reclamation Board has jurisdiction. Therefore, the project proponent should be notified that a Reclamation Board Permit is required prior to start of any work, including excavation and construction activities, within the Reclamation Board designated floodways, project floodways, levees, and within 10 feet landward of the landside levees' toes, as required by Section 8710 of the California Water Code.

88-2 The Board permits only limited work within the floodways and levees during the following flood seasons: November 1 to April 15 for projects located north of Mossdale, and November 15 to July 20 for projects located south of Mossdale.

88-3 Also, regulating agencies may require that the project be constructed in accordance with the Federal Emergency Management Agency's guidelines.

Thank you for the opportunity to comment. For further information, contact Carol Calton at the above address or telephone (916) 653-9898.

Sincerely,

Donald L. Jackson, Chief
Floodway Protection Section

cc: Projects Coordinator (A-38)
The Resources Agency

Office of Planning and Research
1400 Tenth Street
Sacramento, California 95814

88-1 Thank you for your letter. We addressed this requirement in section 5.3.3.2.

88-2 We will pass this requirement along to Mojave.

88-3 Comment noted.

CA-17204A
1790, 2880
(CA-063.2)

APR 1 4 1995

your reference:
Docket Nos. CP93-258-000, et seq.

Office of the Secretary
Federal Energy Regulatory Commission
825 N. Capitol Street, NE
Washington, DC 20426

Gentlemen:

As a "cooperating agency" in the NEPA process, we have completed our review of the Draft EIR/EIS for the proposed Mojave Pipeline Northward Expansion Project. Copies of the Draft EIR/EIS were provided to our Bakersfield, Barstow and Needles offices for review and comment, as well as having been circulated among the staff here in our California Desert District Office.

The only comments that were generated by our review came from our Needles Resource Area Office and I have included a copy of those comments with this letter (enclosure). The resources addressed are; Recreation, Visual, Wildlife, Cultural, and Realty. Furthermore, a number of these comments reference those previously provided from our staff's review of the Administrative Draft, which apparently were overlooked. We realize that a number of changes, including the passage of the California Desert Protection Act of 1994 (CDPA), have occurred while this EIR/EIS has been in preparation. However, we anticipate that now that the CDPA has become law, including the designation of wilderness along with the creation and transfer of lands to the NPS for the new Mojave Preserve, that the Final EIR/EIS should have been corrected to reflect responses to the comments of our Needles Resource Area staff. Any questions or clarifications needed on any of those comments should be addressed either to Rich Fagan, Area Manager, or his staff at Needles. Their phone number is (619) 326-3896 or FTS 700-545-3800.

One issue that has been raised between Stephen Johnson, our Special Projects Manager, and Mike Boyle, of your staff, involves "compensation" for disturbance. According to Larry Foreman, our wildlife biologist, this issue has been discussed among all the key wildlife biologists (including the U.S. Fish & Wildlife Service and California Department of Fish & Game) involved with this proposed project. The agreement was that "compensation" would be required for any and all disturbance to habitat, yet disturbance within the area of previous construction would be prorated. That is, if full recovery is anticipated to occur within 25 years, then additional disturbance occurring after, say, 5 years of recovery would be calculated at 1/5 th or 20% of what would be required for new construction in previously undisturbed habitat. Any questions on this particular issue should be addressed to Larry Foreman at (909) 697-5387.

Thank you for this opportunity to review and comment, and we will be anticipating receipt of the Final EIR/EIS for the proposed Mojave Northward Expansion Project, as corrected to reflect our comments.

Sincerely yours,

/s/ Alan Stein, Acting

Henri R. Bisson
District Manager

Enclosure

cc: Michael Boyle, FERC
Lillian K. Stone, DOI/OEPC
Area Manager, CA-069

Needles Resource Area Staff comments to Draft Mojave Pipeline Expansion EIR/EIS:

Page	Comments
RECREATION	
4-108	4.7.3: Delete the word "Cross" in "Cross National Trails Highway."
	The document is incomplete in its description of the affected environment relative to recreation. Except as regards sightseeing on U.S. Route 66, no 89-1 mention is made about dispersed recreation use within, or in proximity to, the pipeline corridor. Such recreation use does occur and may be affected by construction activities.
	Although no specific data exists as to number of participants, a brief statement, at a minimum, must be included that acknowledges the occurrence of sightseeing via off-highway vehicles on backcountry routes (e.g., East Mojave Heritage Trail), and hiking on such features as Amboy Crater which is within the viewshed of the proposed pipeline--since sightseeing as a recreational activity is an important component of virtually all visits to Amboy Crater, the visual impacts of the project have a bearing on visitor satisfaction to the site.
	89-2 "Recreation and Public Interest Areas" requires definition. See comment below relative to Table 4.7.3-1.
	Refer to comments submitted relative to the Preliminary Draft for further discussion.
4-117	Table 4.7.3-1: Comments submitted relative to the Preliminary Draft still 89-3 pertain. Unless "Recreation and Public Interest Areas" are clearly defined in a manner that excludes Amboy Crater National Natural Landmark (U.S. Route 66 and the East Mojave Heritage Trail may not fall within the intended scope of the table), consideration must be given to its inclusion. In fact, it may be reasonable to include the entire Congressionally-designated California Desert Conservation Area (CDCA) in the table unless "Public Interest Areas" are defined in a manner that limits the scope of what constitutes such areas.
5-100	89-4 5.7.3.1: In defining what constitutes significant impacts, the third criterion should also mention wilderness areas, not just wilderness study areas.
	89-5 One can infer from the narrative that limitations on access to areas/routes traditionally used for dispersed recreation activities are not significant. This may or may not be the case.

89-1 Thank you for your letter. Comment accepted. See revised text in section 4.7.3.

89-2 "Recreation and Public Interest Areas" for the purpose of this analysis are defined as those areas that would be crossed by or are adjacent to the pipeline. We don't believe there would be more than a minimal impact on other recreation areas.

89-3 See previous response. We believe that both of these specified areas are too far from the pipeline to be more than minimally affected by the project.

89-4 Comment accepted. See revised criterion in section 5.7.3.1.

89-5 We believe it is the case. Any limitations on access to these areas resulting from the proposed construction would be temporary.

	89-6	As the East Mojave Heritage Trail constitutes an increasingly popular backcountry touring route for off-highway vehicle enthusiasts, any permanent or long-term limitation on use of the route would be considered to be significant. Therefore, the second criterion should be modified to indicate that additional mitigation would be required if the project would "limit access to regionally recognized recreation areas or trails (motorized or non-motorized) during peak use periods." (Note: Not all "trails" are contained within established recreation areas.)	89-6	Comment accepted. See revised criterion in section 5.7.3.1.
5-100	89-7	5.7.3.2: The document focuses on "recreation areas," thereby dismissing impacts to dispersed recreationists or those using such recreation routes as the East Mojave Heritage Trail. This limitation can be simply corrected by amending the narrative to include dispersed recreation activities and the use of trails, both motorized and non-motorized. The general impacts cited as temporarily inconveniencing or restricting recreation activities would then be sufficient.	89-7	Comment accepted. The text has been revised to include dispersed recreation activities in section 5.7.3.2.
	89-8	Stating that use of recreation areas is high during the summer months is false with regards to the Needles Resource Area section, or other such desert sections, of the project. The high-use period in these areas occurs during the spring and fall months.	89-8	Comment accepted. The text has been revised in section 5.7.3.2.
5-101	89-9	5.7.3.2 (continued): An assumption is made that using the right-of-way for certain recreational activities necessitates a proposal for joint use and the subsequent granting of an easement. However, pipeline maintenance roads are frequently used as transportation routes, including use for sightseeing purposes. without prior approval or the securing of an easement. Such is commonplace throughout the Mojave Desert. Therefore, failure to recognize the occurrence of such activities and address the impacts of pipeline construction on these activities is not acceptable. Simply because no one has proposed joint use of the right-of-way for recreational purposes is no reason to avoid describing impacts to traditional recreational uses of the existing routes that occur within and/or cross the corridor.	89-9	We disagree. The temporary disruption of the unauthorized use of Mojave's maintenance road due to an authorized activity by Mojave is considered a minimal and acceptable impact.
5-101	89-10	5.7.3.3: Under the heading, "California Desert Conservation Area," there appears to be a misunderstanding as to how the California Desert Protection Act of 1994 relates to the CDCA. For the most part, the Act affects lands within the CDCA, but it is incorrect to state that "further clarifications of the CDCA boundaries may occur" consequent to the Act. Rather, "clarifications," or adjustments, to wilderness area boundaries within the CDCA may occur, but the boundaries of the CDCA itself will not be altered.	89-10	Comment accepted. The text has been corrected in section 5.7.3.3.
	89-11	Site-specific impacts relative to the Amboy Crater National Natural Area, U.S. Route 66 (as a recreational sightseeing route), and the East Mojave Heritage Trail, as appropriate, should be discussed in this section.	89-11	The text section 5.7.3.3 has been revised to include Route 66.

VISUAL RESOURCES

4-109 89-12 4.7.4: It is incorrect to state that the BLM has categorized the scenic resources within the Mojave Desert. To date, there is no such categorization, i.e., the BLM has not determined Visual Resource Management (VRM) classes for the desert as a whole. Therefore, it is incorrect to imply that the predominant VRM categories near the pipeline are Class II and III as established by the BLM. First, it will be necessary to establish such classes using the BLM's system.

Furthermore, it is of no value to cite the predominant scenic quality as good or fair. Once the VRM class has been determined (scenic quality is just one determinant of the VRM class), the analysis must focus on whether the objectives of the VRM class are achieved consequent to project development.

Lava Hills is no longer a wilderness study area--it was not designated as wilderness and has been released from further study.

89-13 It is incorrect to state that the critical viewpoint for the scenic resources cited is Interstate Highway 40. In fact, this reveals a misunderstanding of the BLM's VRM system, particularly of the "key observation point" concept. The selection of key observation points is based on visibility of a project from locations of substantial visitation. Analysis of whether the project meets VRM objectives is based upon the project's visibility from the key observation points. The visibility of scenic resources from various observation points, particularly if the points are not within the project area, is not an issue.

Refer to comments submitted relative to the Preliminary Draft for further discussion about the BLM's VRM system.

5-105 89-14 5.7.4.1: Refer to comments submitted relative to the Preliminary Draft--the statements made in this section are in error given the reference in Section 4.7.4 (page 4-108) that the BLM system is the basis for the visual resources survey.

It is not required that the BLM's system be employed, but if it is not being used, then any reference to it must be omitted, including the determination of VRM classes per BLM guidelines. Otherwise, it will be necessary to conduct the survey and complete the analysis in accordance with the BLM's system.

5-105 5.7.4.2: Comments submitted relative to the Preliminary Draft still apply--adjustments to the text were not made.

89-15 Section 4.7.4 (page 4-109) indicates that the landscape in question fall within VRM Classes II and III (see comments above relative to Section 4.7.4). However, the section being addressed here fails to discuss whether

89-12 We have reviewed the relevant analysis in the EIR/EIS on the Mojave-Kern River-El Dorado Natural Gas Pipeline Projects (1987) prepared for the existing Mojave pipeline and determined that it remains valid. As stated in section 4.7.4, the visual impact analysis for those portions of the project that are located in the Mojave Desert is incorporated by reference from the earlier document. The information presented in the text summarizes that original analysis. Lava Hills WSA has been deleted from section 4.7.4

89-13 The critical viewpoint is identified on page 4-71 of the Mojave-Kern River-El Dorado EIR/EIS.

89-14 As stated in section 4.7.4, the visual resource survey made use of a system "adapted from" the BLM system. Only that portion of the project in the Mojave Desert was analyzed using the BLM system, and this analysis was performed for the Mojave-Kern River-El Dorado EIR/EIS.

89-15 We agree that the visual impact from aboveground facilities should be considered permanent and have revised the text accordingly in section 5.7.4.2.

management objectives associated with these classes will be achieved consequent to project development, a fundamental determination under the BLM's VRM system. In essence, if the BLM's VRM system is used to assess impacts to visual resources, then it must be used as intended, and the environmental consequences portion of this document must correspond to statements made in the affected environment section. In its present form, it fails to do so.

89-16	5.7.4.3: The statements made under the heading "Mojave Desert" reveal a lack of knowledge about the area in question. Loop 1 is within the viewshed of the Marble Mountains, but no portion of the loop is within view of Interstate Highway 40--both the Marble Mountains and the Clipper Mountains lie between the pipeline and the I-40. Furthermore, there is no indication in the document that the Marble Mountains have been chosen as a key observation point for analysis of impacts. Given the general lack, or low occurrence, of visitation to the Marble Mountains relative to travelers along U.S. Route 66 and the East Mojave Heritage Trail, using the Marbles as a key observation point does not make sense.	89-16	This description is adopted from the Mojave-Kern River-El Dorado EIR/EIS.
89-17	Given the conclusions relative to visual resources from the Mojave-Kern River-El Dorado EIR/EIS, why are no mitigation measures proposed when impacts to visual resources in one area are considered to be significant?	89-17	The Mojave-Kern River-El Dorado EIR/EIS concluded that the construction of Mojave's original line would result in a significant visual impact. Because the current proposal would only temporarily redefine the existing line, the visual impact would not be significant. See revised section 5.7.4.3.

WILDLIFE

Review of the draft EIR/EIS of the Mojave Pipeline Northward Expansion Project revealed that several of the comments provided by this office for wildlife/botany after the preliminary draft review were not fully considered. Many of the concerns this of this office have been deleted in this draft EIR/EIS. Most of the concerns that were previously recorded are still valid and should be reevaluated by Mojave Pipeline. Granted, many of the concerns on threatened and endangered species will be addressed within the biological opinion from the Fish and Wildlife Service, but loops 1 and 2 in the Mojave Desert, although a small part of the project, have pertinent mitigation measures, protections, and stipulations addressed by the Needles Resource Area that require evaluation.

2-24	89-18	No rodenticide or herbicide are to be used on the right of way (ROW) within desert tortoise critical habitat without specific approval from USFWS.	89-18	Comment noted; no change required. As described in MPM 2, Mojave would not use rodenticides or herbicides or herbicides unless agency-approved. See revised ARM 30.
	89-19	All personnel are to stay within the construction ROW at all times vs only in the sensitive areas.	89-19	We require all vehicles to stay within the construction right-of-way at all times but not personnel. However, BLM and other Federal agencies may attach additional requirements when on Federal land. See ARM 12 in which we recommend that Mojave be required to consult with the BLM or other Federal land management agency to determine their requirements and recommendations for facility construction, operation, and maintenance on Federal lands. If the requirements or recommendations differ from those of the staff, Mojave shall comply with the requirements and recommendations of the Federal land management agency when on Federal lands.
	89-20	Open trenches are to be inspected at a minimum of twice a day, once in the morning before work starts and once in the evening immediately before going home, as well as, immediately prior to backfilling. This is to preclude injuries or mortality to desert tortoises.	89-20	Comment accepted. See revised ARM 30.

89-21 See also: 5-58 paragraph 6 – replace "we recommend" with "Mojave will inspect open trenches three times a day.. . "

5-15 89-22 (Bottom) The Needles Resource Area requests Mojave to leave boulders on the ROW to preclude off road vehicle (ORV) travel.

5-58 89-23 Paragraph 8 – replace "we recommend" with "Mojave will provide off-site compensation. . . "

5-76 89-24 (Bottom) Add "Desert tortoises found will be removed by a qualified biologist according to the established USFWS protocol."

7-26 89-25 Add to MPM 39: Hydrostatic Testing: Before any water is released from the pipeline onto the desert area after testing, monitors will be required to clear all potential areas to be flooded/affected of desert tortoises. Fiber optic scopes will be used to determine that tortoises are not present in burrows. This will prevent tortoises in burrows from being drowned. If they are on the surface, this will prevent them from being washed downstream or injured.

7-27 89-26 (g) No rodenticide or herbicide will be used on the ROW within desert tortoise designated critical habitat without specific approval by USFWS.

CULTURAL RESOURCES

ES-9 89-27 Paragraph 1; line 5; If it is determined that the proposed project would [adversely affect historic resources determined eligible for inclusion in the National Register of Historic Places,] site-specific treatment plans would be required.

Paragraph 2 89-28 Any and all effects on cultural resources including historic and Native American sites would be less than significant or would be mitigated to less than significant levels [if determined eligible for inclusion under criterion d or avoided] by the proposed or recommended measures.

REALTY

Review of the draft EIR/EIS of the Mojave Pipeline Northward Expansion Project indicate that the comments provided by this office concerning realty in the preliminary draft review were not considered. All of the concerns that were previously recorded are still valid.

2-18 89-29 Paragraph 1: Clearing and grading the entire width of the right of way is excessive. The clearing and grading is to be limited to only that area necessary for the actual work to be accomplished. Provide specific details or parameters to explain what the requirements are for the "safe and efficient operation of construction equipment."

89-21 The recommendations in the EIR/EIS are those of the FERC and SLC staffs. Those recommendations will be considered by their respective Commissions prior to the issuance of any certificate and may be attached as conditions to the certificate. Applicants must then comply with the conditions during the planning, construction, and operation of the project. See ARM 12 with regard to additional conditions on Federal lands.

89-22 This is a summarization of measures contained in the FERC staff's standard Upland Erosion Control, Revegetation, and Maintenance Plan. See ARM 12 with regard to additional conditions on Federal lands.

89-23 See response to 89-21.

89-24 Comment noted; no change required. Mojave's MPM 40 states that "Tortoises will only be handled by qualified biologists according to protocols agreed upon by the FWS and DFG." See revised table 5.6.3-1.

89-25 Comment accepted. See revised ARM 30.

89-26 Comment accepted. See revised ARM 30.

89-27 Comment accepted. See revised Executive Summary.

89-28 Comment accepted. See revised Executive Summary.

89-29 The FERC authorization will be for the right-of-way width considered necessary to safely and efficiently construct and operate the project.

2-23	89-30	2.4.6 Access Roads: There is no discussion of maintenance of access roads. Discuss maintenance requirements for the access routes for life of the pipeline. Include the estimated amount of travel, anticipated types of wear and tear on the roads, which roads would be used, and the equipment required for maintenance of the access route.	89-30	Mojave does not propose to construct any new access roads except the short entry roads to the compressor stations (which would be permanent).
5-147 and 6-1		(paragraph 8 & 9)		
	89-31	Paragraph 3: The assumption that the Amboy compressor station would have no significant adverse effect at the proposed location is incorrect. The Rail Cycle project is in the immediate area as are two salt processing plants and there is a major agriculture project as well as the compressor for the All American Pipe Line in a relatively close proximity. The cumulative effect of the additional emissions on the agricultural development and the local residents is not known. The statement on 5-147 (paragraph 9) that "existing regulatory programs are designed to address this potential" does not sufficiently discuss the potential environmental affects. Discuss these potential cumulative impacts in more detail.	89-31	We disagree. We believe air quality concerns are adequately addressed in the document (see sections 4.10.1.1 and 5.10.1.5). The Amboy Compressor station would be subject to a New Source Review (NSR) by the Mojave Desert Air Quality Management District. The NSR process would take into account all other emission sources in their determination of whether to issue a permit. Mojave would be required to provide offsets and install BACT for all emissions exceeding the NSR threshold.

MAR 1 6 1995

1. Project Coordinator
Resources Agency
2. State Lands Commission
1807 13th Street
Sacramento, California 95814
Attention: Mary Griggs

SCH 94032040/DRAFT ENVIRONMENTAL IMPACT REPORT, VOLUMES I and II, MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT

Thank you for allowing the Division of Operations and Maintenance of the Department of Water Resources the opportunity to review and comment on the above-referenced DEIR.

The 290-mile-long Mojave Pipeline Project will transport natural gas from the City of Bakersfield to the City of Martinez. Other segments of the pipeline will branch off the main line delivering natural gas to other communities throughout central and northern California, bringing the maximum length of the pipeline to 390 miles. The pipeline crosses State Water Project facilities numerous times as it traverses the North Mainline Route and its other segments.

90-1 Table 1.4-1, on page 1-14 of the DEIR, lists numerous federal, State, and local regulatory agencies from which the Mojave Pipeline Project must obtain permits prior to construction of the project. Under the State of California, the Department of Water Resources is not listed. Because of the numerous crossings of the California Aqueduct and the South Bay Aqueduct proposed by this project, Table 1.4-1 should have DWR listed as one of the State agencies from which encroachment permit(s) would be needed prior to construction.

90-2 At the bottom of page 5-27, under the section titled "Irrigation Districts," it is stated that encroachment permits would be required from the U.S. Bureau of Reclamation or DWR for federal or State aqueduct crossings. However, neither USBR nor DWR is an Irrigation District and should be listed outside of this category.

Following are the pipeline's crossings of the California Aqueduct and the South Bay Aqueduct:

90-1 Thank you for your letter. Comment accepted. See revised table 1.4-1.

90-2 Comment accepted. See changes to section 5.3.3.2.

NORTH MAINLINE
SACRAMENTO-SAN JOAQUIN DELTA BASIN

1. At pipeline Station 235.3, California Aqueduct crossing southwest of the City of Tracy.

TULARE LAKE BASIN

2. At pipeline Station 37.5, California Aqueduct crossing 2.5 miles east of the City of Huron. Please note that the United States Corps of Engineers is currently preparing a flood control study for Arroyo Pasajero and its tributaries. The Mojave pipeline alignment crosses Los Gatos Creek (a tributary) at project Station 43.8, approximately 1.6 miles east of Interstate 5.

PALO ALTO SEGMENT

90-3 3. At pipeline Stations 1.1, 1.7, and 4.6, South Bay Aqueduct crossings south of Livermore near the southeasterly property of Lawrence Livermore Laboratory. In addition, a crossing of the South Bay Aqueduct depicted on maps 13 of 43 and 28 of 43, situated at the southeast corner of projected Section 6, Township 3 South, Range 3 East, MDBM, is not addressed in either VOLUMES I or II of the DEIR.

90-4 4. At pipeline Station 24.0, crossing of South Bay Aqueduct east of Highway 680, north of Scott Creek Road in Alameda County. This crossing is incorrectly identified in both Volume I, on page 4-48, and in Volume II, map 29 of 43 as buried aqueduct. This should be amended to "DWR's South Bay Aqueduct."

BAY AREA ALTERNATIVES

5. At pipeline Station 11.6, crossing of California Aqueduct approximately 800 feet southwest of Clifton Court Forebay in Contra Costa County.

6. At pipeline Stations 33.8 and 34.6, as shown on map B-2, Volume II of the DEIR, depicts two California Aqueduct crossings south of the City of Pittsburg. This appears to be a single crossing of the Mokelumne Aqueduct which is not part of the State Water Project.

90-3 Comment accepted. See changes to table 4.3.2-1.

90-4 Comment accepted. See changes to table 4.3.2-1.

Regarding Items 3 and 4 above, all references to the South Bay Aqueduct should be amended to **"DWR's South Bay Aqueduct."**

90-5 At the bottom of page 7-21, it states under MPM (Mojave Proposed Measure) that, "Mojave will bore beneath most irrigation canals, especially lined canals, **but would bridge the California Aqueduct and the Delta Mendota Canal.**" All crossings of State Water Project facilities require that the potential user of DWR right-of-way submit detailed engineering plans and specification to DWR for review and comment. If the plans are acceptable, an encroachment permit would be issued to the applicant for the work to be performed. The applicant, upon request, will be provided a copy of DWR's Encroachment Permit Guidelines which detail DWR requirements to successfully complete the encroachment permit process. Upon review of the submitted engineering plans, other requirements may be placed on the applicant's proposed encroachment.

90-6 To receive a copy of DWR's Encroachment Permit Guidelines, Mojave should contact:

Department of Water Resources
Division of Land and Right of Way
1416 Ninth Street
Post Office Box 942836
Sacramento, California 94236-0001
Attention: Conny Anderson (916) 653-6957

If you have any questions regarding our review of the Mojave Pipeline Northward Expansion Project, please contact David Wrightsman of my staff at (916) 653-7168.

Keith G. Barrett

Keith Barrett, Chief
Division of Operations
and Maintenance

bcc: J. Silveira/1115-5
N. Gayou/1020 9th St.
F. Conti/431
F. Dubar/547-3
C. Anderson/431

DWrightsman:lmb
M:\USERS\HQ\WRITSMAN\SCH2040.

90-5 Comment accepted. See changes to section 7.5.2.1.

90-6 Comment noted. We will pass this information along to Mojave.

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COMMENTS RECEIVED AT PUBLIC HEARINGS

Transcript Page No.	Comments [Commentor]	Responses
SAN FRANCISCO, CALIFORNIA - FEBRUARY 27, 1995		
9	The pipeline could pose hazards within the City of Brentwood.	Reliability and safety of the pipeline are discussed in section 5.11. The DOT has jurisdiction over the safety of natural gas pipelines and its standards for design, construction and operation are designed to protect the public safety. See comment response 2-17.
	Water is supplied by wells which construction may affect.	With the mitigation included in the project, we do not expect any adverse effects on wells. As discussed in sections 5.3.2.1 and 5.3.2.2, if blasting is required, Mojave must submit a Groundwater Monitoring Plan(ARM 21). MPMs 16, 17, and 18 also address mitigation for wells.
	The Southern Pacific Railroad is crossed at grade and construction may impair emergency and other vehicles. Boring or jacking should be required. [Daniel Arellano, City of Brentwood]	As discussed in section 5.7.2.2, Mojave would complete any open cut road crossings in one day, traffic would be controlled, and emergency services would be maintained during construction. Construction traffic control plans would be developed in coordination with public safety officials in each community.
10-13	The proposed project is uneconomic and duplicative; PG&E can provide reliable service to all customers with less overall construction and less environmental effect. PG&E has had no natural gas curtailments since 1993, when Line 401, which can deliver 800 Mcf/day, came on line. No natural gas curtailments are forecast for average years. Mojave is attempting to skim cream PG&E's noncore leads as a FERC-regulated pipeline in competition with a state-regulated company. Between the years 2000 to 2010, with minor facility changes about 1/5 the size of those proposed, PG&E can serve all the customers Mojave would serve. [Buck Jones, Pacific Gas & Electric Company (PG&E)] *	See responses to letter 37.

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* Presented the same information at all four public meetings.

Transcript Page No.	Comments [Commentor]	Responses
13	The project will affect property owned by Tuntex in Brisbane and San Francisco; requested information. [Mark Buell, Tuntex]	Tuntex added to mailing list. Easement negotiations will proceed as discussed in section 5.7.1.2.
	LIVERMORE, CALIFORNIA - FEBRUARY 27, 1995	
37	Prefers the Tracy to Antioch Southern Pacific Railroad Alternative. [Howard Higgins]	None required.
38	Concerned about the proposed route through Livermore because alignment in EIR differed from that discussed with Mojave in prior meetings. Requested that public comment process remain open until the specific alignment is determined. [Phil Wente, Wente Brothers]	Mr. Wente will have input before the route is finalized. The Livermore/Roadway Variation was developed to address the commentor's concerns.
43	Concerned about pipeline route through South Livermore. [Valerie Raymond]	The Livermore/Roadway Variation addresses the commentor's concerns.
47-49	Objected to the proposed route across his property in the South Livermore area unless it can use an existing easement; has kit fox on property and formerly a bald eagle which was disturbed by a new access road. [Paul Rupert]	The Livermore/Roadway Variation will use existing rights-of-way.
	FRESNO, CALIFORNIA - MARCH 1, 1995	
14	Requested information on the schedule for approving or denying the project. [Russ Roberts, Teamsters]	The preliminary determination was issued in November 1995 and other issues are still under consideration.
	BARSTOW, CALIFORNIA - MARCH 2, 1995	
8	Stated the Sacramento Municipal Utility District's support for the Mojave project. [Calvin Miller, SMUD]	None required.

APPENDIX D

COMPENSATION CALCULATIONS AND BIOLOGICAL RESOURCE PROTOCOLS

APPENDIX D
COMPENSATION CALCULATIONS AND BIOLOGICAL RESOURCE PROTOCOLS

1.0 COMPENSATION CALCULATIONS

1.1 Desert Tortoise Compensation Calculation

These guidelines reflect the BLM habitat categorization as well as the type of projected disturbance. BLM habitat categories, ranging in decreasing importance from Category 1 to Category 3, were designed as management tools to ensure future protection and management of these areas and their associated desert tortoise populations. These categories are consequently based not solely on tortoise density and the quality of the habitat but also on land use conflicts and estimated local tortoise population trends. Category 1 habitat is considered essential to the maintenance of large, viable populations, is occupied by primarily medium- to high-density populations, and has resolvable land use conflicts. Category 3 habitat is not considered essential to the maintenance of viable populations, is occupied by low- to medium-density populations isolated from higher-density populations, and has unresolvable land use conflicts.

According to the BLM guidelines, the habitat compensation ratio is calculated according to the following formula:

$$\text{Compensation rate} = C + A + G + E + D$$

where

C	=	Category of habitat:	
		Category 2 habitat	1
		Category 1 habitat	2
A	=	Impact on adjacent lands:	
		No impact	0
		Impact that will reduce tortoise densities	0.5
G	=	Growth resulting from proposed project:	
		No growth	0
		Some growth	0.5
E	=	Existing disturbance:	
		Moderate to heavy	0
		Little to none	1.0
D	=	Duration of effect:	
		Less than 10 years	0
		Longer than 10 years	1.0

The compensation ratio is 1.0:1 for all Category 3 habitat. A habitat compensation ratio of 4.0:1 was calculated for impact on previously undisturbed Category 1 habitat adjacent to the existing Mojave pipeline right-of-way. The factors in the compensation ratio formula were applied as follows:

- Factor A — Land adjacent to the proposed project would not be indirectly impacted (A = 0).
- Factor G — The proposed project would not have any growth-inducing impact in the Mojave Desert (G = 0).
- Factor D — Clearing of previously undisturbed habitat would be considered a long-term impact as would the construction of permanent facilities such as compressor stations (D = 1).
- Factor E — It is assumed that little or no disturbance currently exists in the additional right-of-way that would be cleared outside the previously disturbed right-of-way (E = 1).

In areas previously disturbed by the existing Mojave pipeline, we recommend that an adjusted compensation ratio be used to compensate for the years of recovery that will have occurred by the time construction on the proposed project is begun. Because redisturbance will extend the recovery time, the full compensation formula will be calculated and then reduced in proportion to the time expected for the existing disturbance to substantially recover. "Substantial recovery" is defined as recovery to:

- A perennial plant density of about 90 percent of the predisturbance density of plants nearly as large as the predisturbance plants.
- An annual plant productivity within 90 percent of that in the surrounding undisturbed area.
- Levels of food and cover sufficient for tortoises to forage and live.
- Soil conditions suitable for burrowing.

Using these criteria, we estimated the time required for substantial recovery to be 25 years; therefore, the compensation ratio of 4.0:1 calculated for the newly disturbed areas will be decreased by multiplying by a factor of x/25s where "x" equals the years of recovery that have occurred subsequent to construction of the existing pipeline and 25 equals the time required for substantial recovery.

1.2 San Joaquin Kit Fox Compensation Calculation

Compensation is proposed on the basis of the quality of the existing habitat lost and the time period of compensation. Mojave proposes to apply the same compensation formula used for the existing Mojave pipeline for kit fox and other endangered species that inhabit good-quality grassland or chenopod scrub habitats:

$$A_c \text{ x } T_c = \frac{A_i \text{ x } P_i \text{ x } Y}{E}$$

where

A_c = Acres of compensation (Value to be determined)

T_c = Period of compensation (Although compensation habitat will be held in perpetuity, this period has been set at 50 years.)

A_i = Acres of impact

P_i = Period of impact defined as the time between the start of construction in the area to recovery of the area as wildlife habitat (Restoration times in the San Joaquin Valley were calculated by the agencies for the San Joaquin Valley Pipeline Project assuming that artificial reclamation procedures would be used including monitoring and repeat efforts where initial efforts are not successful, all of which are part of Mojave's reclamation program; we used a period of 5 years for grassland habitat and 18 years for chenopod scrub habitat.)

Y = Habitat yield ratio (A value of 3 is used in the formula based on an estimated effective yield of 0.33 gain in long-term carrying capacity.)

E = Existing condition (Existing condition values are based on the qualitative assessment of potential kit fox habitat presented in the above discussion; for calculation purposes, good-quality habitat is considered to have an existing condition value of 1.)

Compensation is proposed on the basis of the quality of the existing habitat lost and the time period of compensation. Mojave proposes to apply the same compensation formula used for the existing Mojave pipeline for kit fox and other endangered species that inhabit good quality grassland or chenopod scrub habitats:

$$A_c \text{ x } T_c = \frac{A_i \text{ x } P_i \text{ x } Y}{E}$$

where

A_c = Acres of compensation (value to be determined)

T_c = Period of compensation (Although compensation habitat will be held in perpetuity, this period has been set at 50 years.)

A_i = Acres of impact

P_i = Period of impact defined as the time between the start of construction in the area to recovery of the area as wildlife habitat (Restoration times in the San Joaquin Valley were calculated by the agencies for the San Joaquin Valley Pipeline Project assuming that artificial reclamation procedures would be used including monitoring and repeat efforts where initial efforts are not successful, all of which are part of Mojave's reclamation program; for the purposes of this assessment, a period of 5 years will be used for grassland habitat and 18 years for chenopod scrub habitat.)

Y = Habitat yield ratio (A value of 3 is used in the formula based on an estimated effective yield of 0.33 gain in long-term carrying capacity.)

E = Existing condition (Existing condition values are based on the qualitative assessment of potential kit fox habitat presented in the above discussion; for calculation purposes, good-quality habitat is considered to have an existing condition value of 1.)

SAN JOAQUIN KIT FOX PROTOCOL

STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE SAN JOAQUIN KIT FOX

April, 1989

Introduction:

This document summarizes mitigation actions recommended by the U.S. Fish and Wildlife Service (FWS) to protect the federally endangered San Joaquin kit fox during construction projects and other types of developments and activities. Its purpose is to make information on kit fox protection strategies readily available to developers and other interested persons and groups, and to help standardize the methods and definitions currently employed to achieve kit fox protection. The following measures are advisory in nature and do not represent legal requirements. However, taken together or in part they do represent a comprehensive strategy considered necessary by FWS to protect the San Joaquin kit fox from the direct, indirect, and cumulative effects of development projects. Implementation of these measures may be necessary to avoid violating the provisions of the Endangered Species Act of 1973, as amended (Act), including the prohibition against "incidental take" (defined as the killing, harming, or harassment of a listed species that is incidental to, but not the primary purpose of, an otherwise lawful activity). Such measures may also be required under the terms of a biological opinion pursuant to Section 7 of the Act or an incidental take permit pursuant to Section 10 of the Act. The following list includes many of the kit fox protection measures typically employed to date, but it is not by itself intended to serve as a mitigation plan or agreement or to obviate the need for formal compliance under Sections 7 and 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined on a case-by-case basis in consultation with FWS, utilizing these and possibly other mitigation measures. The measures outlined in this document are subject to modification or revision at the discretion of FWS.

Part I: Pre-construction Conditions

1. Within 60 days prior to the beginning of construction activities or any project activity likely to impact the San Joaquin kit fox or other endangered or threatened species, pre-construction or pre-activity surveys should be conducted by a qualified biologist on all project areas. A qualified biologist means any person who has completed at least four years of university training in wildlife biology or a related science and has demonstrated field experience in the identification and life history of the San Joaquin kit fox. Surveys should determine the presence or absence of kit fox on the project site(s), identify specific uses of the area by kit fox if possible, and assess the potential impacts to the species of the proposed activity. Survey methodologies should follow techniques acceptable to FWS; information on survey methods and biota report formats may be obtained from FWS if desired. If possible, San Joaquin kit fox surveys should be conducted between March 1 and July 31 when kit fox activities are easiest to detect.

2. Results of pre-construction or pre-activity surveys should be submitted to FWS in writing within two weeks after their completion. If a previous study was conducted before the pre-construction survey, such as a Biological Assessment, results of the pre-construction survey may be submitted in letter form and need address only essential information, e.g., number of kit fox dens located in the project area, their status, other kit fox activity identified, and a map showing specific locations. If no kit fox activity is identified by the pre-construction survey, a brief letter stating this will suffice. If no previous survey was conducted, results of the pre-construction survey should be submitted in full report format, including methods employed, results, discussion, etc.

3. Following these surveys and before project activities begin, protective exclusion zones should be established around all known and potential San Joaquin kit fox dens (den definitions are provided in the Appendix). The configuration of exclusion zones should be circular, with a radius of specified distance measured outward from the den entrance or cluster of entrances. The size (radius) of these zones will be determined on a project-specific basis in consultation with FWS. Construction-related and other project activities should be prohibited or greatly restricted within these exclusion zones. Only essential vehicle operation on existing roads and simple foot traffic should be permitted. Otherwise, all construction, vehicle operation, materials storage, or any other type of surface-disturbing activity should be prohibited within these zones.

4. To ensure protection, the exclusion zones for all known San Joaquin kit fox dens should be demarcated by fencing that encircles each den at the appropriate distance. Exclusion fencing should consist of large flagged stakes (4- to 5-foot metal or 1" x 1" wooden stakes) connected by heavy rope or cord. Each exclusion zone should be posted with two to three signs placed at equidistant points along the perimeter; each sign should identify the fenced zone as an environmentally sensitive area and state that no disturbance is permitted without prior authorization from appropriate project personnel or FWS. Exclusion zone fencing should be maintained until all construction-related or operational disturbances have been terminated. At that time, all fencing and signs should be removed to avoid attracting subsequent attention to the den. For potential dens, placement of three 4- to 5-foot flagged stakes at equidistant points 10 to 15 feet from the den entrance(s), and posting of a single sign beside one stake, will suffice to identify the den location; fencing will not be required but the exclusion zone must be observed.

Part II: Construction and Operational Conditions

5. Disturbance to all San Joaquin kit fox dens should be avoided to the extent possible. Protection of known and potential kit fox dens for use as shelter, escape cover, and reproduction, as outlined above, is vital to the survival of the species. However, FWS recognizes that in some cases avoidance of dens during construction and other types of activities is not possible or practical. Limited destruction of kit fox dens may, therefore, be permitted if avoidence is not a reasonable alternative, provided the following procedures are observed.

a. Prior to destruction of any known kit fox den, FWS should be notified in writing of the intent to destroy the subject den(s) and the reasons why alternate courses of action are not possible. FWS will review the proposal and will either concur or recommend alternate methods to avoid den destruction or reduce impacts. Destruction of known or suspected natal or pupping dens should be avoided during the breeding season (November 1 to July 31). Destruction of natal or pupping dens known to be currently occupied usually will not be permitted until the den has been vacated or the kit fox pups have dispersed. Therefore, project activities at some den sites may have to be postponed. Destruction of a potential den may proceed without prior notification to FWS if no current or previous use of the den by kit fox is known, as determined by a trained biologist. However, if any den thought to be a potential one is determined during destruction to be a currently or previously used kit fox den (e.g., if kit fox sign is found inside), then FWS should be informed immediately of the change in status and provisions for replacement dens will subsequently apply (see condition #17).

b. Prior to the authorized destruction of any known San Joaquin kit fox den, the den should be monitored for at least three consecutive days to determine its current status. Activity at the subject den can be monitored by placing tracking medium at its entrance(s) and by spotlighting. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use. If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activities. Use of the den can be discouraged during this period by partially plugging its entrance(s) with soil in such a manner that any resident animal can escape easily. Destruction of the den may begin when, in the judgement of the conducting biologist, the animal has moved to a different den. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgement of the conducting biologist, it is temporarily vacant, for example during the animal's normal foraging activities.

c. Destruction of the den should be accomplished by careful excavation with hand tools until it is certain that no kit foxes are inside. The den should be fully excavated and then filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation a kit fox is discovered inside the den, the excavation activity should cease immediately and monitoring of the den as described in part 5b. should be resumed. FWS may be contacted for advice if desired. Destruction of the den may be completed when, in the judgement of the conducting biologist, the animal has escaped from the partially destroyed den.

d. All kit fox den excavations and pre-excavation monitoring should be conducted by a trained biologist or under the direct supervision of a trained biologist. Staff biologists of the project proponent, if they have no experience with kit fox prior to the project, may conduct den excavations only if they are previously trained in the procedure by someone experienced in kit fox biology. The results of all cases of den destruction should be conveyed to FWS in writing within two weeks of their completion.

6. Areas subject to permanent and temporary construction disturbances and other types of project-related disturbance should be minimized. Project designs should limit or cluster permanent project features to the least area possible while still permitting project goals to be achieved. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, storage areas, staging and parking areas, and other project areas. Off-road traffic outside of designated project areas should be prohibited. Where practical, all staging, parking, and storage areas should be designated by flagged stakes connected by heavy rope or cord similar to exclusion zone fencing (see #4) and project-related activities should be contained within these areas. These areas should also be included in pre-construction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent unnecessary further impacts. Limiting project-related disturbances is advantageous to the project proponent, because the extent of San Joaquin kit fox habitat impacted by the project and thus subject to habitat compensation and restoration measures may therefore be reduced (see Part III).

7. Project-related vehicles should observe a 20 mph speed limit in all project areas, except on county roads and State and Federal highways; this is especially important at night when kit fox are most active. To the extent possible, night time construction should be minimized.

8. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under condition #14 should be followed.

9. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for any one or more overnight periods should be thorougly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. Kit foxes may be attracted to den-like structures such as pipes and could enter stored pipe and subsequently become trapped or injured if this precaution is not exercized. If during inspection a kit fox is discovered inside a pipe, that section of pipe should not be moved, or if necessary should be moved only once to remove it from the path of construction activity, until the kit fox has escaped. In such a case, FWS may be contacted for advice if desired.

10. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers only and regularly removed from a construction or other project site. Food items may attract kit fox into a project site at night, consequently exposing them to construction-related or other types of hazards.

11. To prevent harassment, mortality, or destruction of dens or burrows of endangered and sensitive species by dogs or cats, no pets should be permitted on project sites.

12. Use of rodenticides and herbicides in project areas with known kit fox occurrences should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by FWS. If rodent control must be conducted, zinc phosphide should be used because of its proven low risk to kit fox.

13. An employee education program should be conducted for any project that has expected impacts to kit fox or other endangered species. The program should consist of a brief consultation in which persons knowledgeable in kit fox biology and legislative protection explain endangered species concerns to officers and supervisors in charge of a project; officers and supervisors should subsequently relate these concerns to their subordinates. The program should include a description of the San Joaquin kit fox and its habitat needs, and should address occurrence of the kit fox in the project area, status of the species and its protection under the Endangered Species Act, and measures being taken to reduce impacts to the species during project construction or implementation. A fact sheet conveying this information should be prepared for distribution to all contractors, their employees, and military and agency personnel involved in the subject project.

14. Any contractor, employee(s), or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox or who finds a dead, injured, or entrapped San Joaquin kit fox should report the incident immediately to his or her immediate supervisor. In the case of trapped animals, escape ramps or structures should be installed immediately if possible to allow the animal(s) to escape, or FWS should be contacted for advice. In the case of dead or injured kit foxes, FWS should be notified in writing within three working days of the finding of any such animal (see #18). Notification must include the date, time, and location of the incident and any other pertinent information. FWS contacts for this information are Mr. David Harlow or Mr. Gail Kobetich (916/978-4866 or FTS 460-4866). Any kit fox or other endangered species found dead or injured must be turned over immediately to the California Department of Fish and Game (CDFG) for care or analysis. The Department contact is Dr. Larry Eng (916/445-1383).

Part III: Habitat Compensation and Restoration

15. San Joaquin kit fox habitat permanently and unavoidably lost to development or subject to temporary disturbance because of project-related activities should be subject to compensation that offsets the area lost through permanent protection of an appropriate area of intact habitat. The amount of habitat permanently protected (i.e., the ratio of area protected to area disturbed) should be determined on a project-specific

basis in consultation with the U.S. Fish and Wildlife Service, utilizing formulas that have been computed and applied in similar projects. Agreeing to habitat loss compensation, however, does not relieve the project proponent of the kit fox protection measures described under Parts I and II of this document. Such protection measures are designed to limit incidental take resulting from a given project, while habitat loss compensation is designed to offset the unavoidable take of kit foxes or their habitat resulting from the project. The area of a given project subject to habitat loss compensation should include any kit fox denning or foraging habitat known to be occupied or utilized by the species prior to that project.

16. Upon completion of a construction or other type of project, all areas subject to temporary ground disturbance, including storage and staging areas, temporary roads, pipeline corridors, etc. should be recontoured if necessary and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is necessarily disturbed during the construction or other initial phase of a project, but that after construction or other initial phases are completed is not subject to further disturbance in the carrying out of project activities. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with FWS, CDFG, and revegetation experts. To the extent possible, local plant species or California native plant species should be used. Disturbed areas should be monitored regularly and reseeded as necessary until the area has returned to pre-project conditions. Areas temporarily disturbed but revegetated in this manner are subject only partially to the habitat compensation measures described in condition #15. In such cases, a lowered habitat loss compensation ratio is computed to account for revegetation efforts.

17. Any known kit fox den that is unavoidably destroyed during a project should be replaced with an artificial den. This will compensate for the loss of important shelter used by kit foxes for protection, reproduction, and escape from predators. Replacement dens are particularly important in areas where den availability appears to be limiting. Den design and placement should be determined on a site-specific basis in consultation with FWS, CDFG, and kit fox experts. Any den originally thought to be a potential den that is found during its excavation to contain evidence of kit fox use should be subject to replacement.

18. Any project-related information required by FWS or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service, Sacramento Endangered Species Office, 2800 Cottage Way, Room E-1823, Sacramento, California 95825, or by phone at 916/978-4866.

APPENDIX:
SAN JOAQUIN KIT FOX DEN DEFINITIONS

Introduction: San Joaquin kit fox dens typically consist of subterranean holes or burrows constructed in flat ground or in areas of low to moderate relief. Typical characteristics of kit fox dens include the following: (1) one or more entrances that are 5 to 8 inches in diameter and frequently are higher than they are wide; (2) den ejecta resulting from digging that forms dirt berms or ramps approximately 3 to 6 feet long adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; and (4) matted vegetation adjacent to the den entrances. However, the specific characteristics of individual dens may vary from the above description, and in some areas, for example in the northern part of the species' range, occupied kit fox dens may lack some or all of these features. Therefore, caution must be exercized in determining the status of any potential or unknown den. In some cases, otherwise typical dens may be constructed in man-made features such as the banks of sumps or roadbeds.

Known Den: Any existing natural den or man-made structure for which conclusive evidence or strong circumstantial evidence can be shown that the den is used or has been used at any time in the past by the San Joaquin kit fox. Conclusive evidence of use may include reliable historical records, past or current radio-telemetry or spotlighting data, or any other appropriate data that, in the judgement of a qualified biologist, is reasonable proof that a given den is or has been used by the kit fox. Circumstantial evidence may include kit fox sign, such as tracks, scat, prey remains, or kit fox remains, or any other appropriate circumstantial evidence that, in the judgement of a qualified biologist, leads to a conclusion that a given den is or has been used by the kit fox. Because kit foxes change dens often, with the result that the status of a given den may change abruptly and frequently, FWS now discourages use of the terms "active" and "inactive" when referring to any kit fox den.

Potential Den: Any natural den or burrow within the species' range that has entrances of appropriate dimensions to accommodate San Joaquin kit foxes for which, however, there is little to no evidence of kit fox use. Potential dens shall include the following: (1) any suitable unused den; (2) any den or burrow of another species (e.g., ground squirrel) that otherwise has appropriate characterisitics for kit fox use; or (3) any suitable den for which available evidence, in the judgement of a qualified biologist, is insufficient to conclude that it is or has been used by the kit fox.

Pupping Den: Any known San Joaquin kit fox den (as defined above) used by kit foxes to whelp and/or rear their pups. Pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults, and usually have denser concentrations of kit fox tracks, scat, and prey remains in the vicinity of the den, and entrances surrounded by a broader apron of matted vegetation. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two; therefore, unless whelping inside a den can be confirmed, any den known to shelter pups should be considered a pupping den.

Atypical den: Any known San Joaquin kit fox den that has been established in or in association with a man-made structure. Dens of this type include pipes, culverts, and diggings beneath concrete slabs and buldings.

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SWAINSON'S HAWK PROTOCOL

Memorandum

To : Div. Chiefs - IFD, BDD, NHD, WMD
Reg. Mgrs. - Regions 1, 2, 3, 4

Date : November 8, 1994

From : **Department of Fish and Game**

Subject : Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California

I am hereby transmitting the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California for your use in reviewing projects (California Environmental Quality Act [CEQA] and others) and in developing 2081 Management Authorizations and 2090 Biological Opinions which may affect Swainson's hawk habitat in the Central Valley. The staff report has been developed during the last 18 months by the Environmental Services Division (ESD) in cooperation with the Wildlife Management Division (WMD) and Regions 1, 2, and 4. It has been sent out for public review on several occasions and redrafted as appropriate.

Either the mitigation measures in the staff report may be used or project specific measures may be developed. Alternative project specific mitigation measures proposed by the Department Divisions/Regions or by project sponsors will also be considered. However, such mitigation measures must be submitted to ESD for review. The review process will focus on the consistency of the proposed measure with Department, Fish and Game Commission, and legislative policy and with laws regarding raptors and listed species. ESD will coordinate project specific mitigation measure review with WMD.

If you have any questions regarding the report, please contact Mr. Ron Rempel, Program Supervisor, Habitat Conservation Planning and Endangered Species Permitting, Environmental Services Division at (916) 654-9980.

COPY [illegible]
A. [illegible]
For
Boyd Gibbons
Direction

Enclosure

cc: Mr. Ron Rempel
Department of Fish and Game
Sacramento

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Staff Report regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California

INTRODUCTION

The Legislature and the Fish and Game Commission have developed the policies, standards and regulatory mandates which, if implemented, are intended to help stabilize and reverse dramatic population declines of threatened and endangered species. In order to determine how the Department of Fish and Game (Department) could judge the adequacy of mitigation measures designed to offset impacts to Swainson's hawks in the Central Valley, Staff (WMD, ESD and Regions) has prepared this report. To ensure compliance with legislative and Commission policy, mitigation requirements which are consistent with this report should be incorporated into: (1) Department comments to Lead Agencies and project sponsors pursuant to the California Environmental Quality Act (CEQA); (2) Fish and Game Code Section 2081 Management Authorizations (Management Authorizations); and (3) Fish and Game Code Section 2090 Consultations with State CEQA Lead Agencies.

The report is designed to provide the Department (including regional offices and divisions), CEQA Lead Agencies and project proponents the context in which the Environmental Services Division (ESD) will review proposed project specific mitigation measures. This report also includes "model" mitigation measures which have been judged to be consistent with policies, standards and legal mandates of the Legislature and Fish and Game Commission. Alternative mitigation measures, tailored to specific projects, may be developed if consistent with this report. Implementation of mitigation measures consistent with this report are intended to help achieve the conservation goals for the Swainson's hawk and should complement multi-species habitat conservation planning efforts currently underway.

The Department is preparing a recovery plan for the species and it is anticipated that this report will be revised to incorporate recovery plan goals. It is anticipated that the recovery plan will be completed by the end of 1995. The Swainson's hawk recovery plan will establish criteria for species recovery through preservation of existing habitat, population expansion into former habitat, recruitment of young into the population, and other specific recovery efforts.

During project review the Department should consider whether a proposed project will adversely affect suitable foraging habitat within a ten (10) mile radius of an active (used during one or more of the last 5 years) Swainson's hawk nest(s). Suitable Swainson's hawk foraging habitat will be those habitats and crops identified in Bechard (1983), Bloom (1980), and Estep (1989). The following vegetation types/agricultural crops are considered small mammal and insect foraging habitat for Swainson's hawks:

- alfalfa
- fallow fields
- beet, tomato, and other low-growing row or field crops
- dry-land and irrigated pasture
- rice land (when not flooded)
- cereal grain crops (including corn after harvest)

The ten mile radius standard is the flight distance between active (and successful) nest sites and suitable foraging habitats, as documented in telemetry studies (Estep 1989, Babcock 1993). Based on the ten mile radius, new development projects which adversely modify nesting and/or foraging habitat should mitigate the project's impacts to the species. The ten mile foraging radius recognizes a need to strike a balance between the biological needs of reproducing pairs (including eggs and nestlings) and the economic benefit of development(s) consistent with Fish and Game Code Section 2053.

Since over 95% of Swainson's hawk nests occur on private land, the Department's mitigation program should include incentives that preserve agricultural lands used for the production of crops, which are compatible with Swainson's hawk foraging needs, while providing an opportunity for urban development and other changes in land use adjacent to existing urban areas.

LEGAL STATUS

Federal

The Swainson's hawk is a migratory bird species protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in Section 50 of the Code of Federal Regulations (C.F.R.) Part 10, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 C.F.R. 21).

State

The Swainson's hawk has been listed as a threatened species by the California Fish and Game Commission pursuant to the California Endangered Species Act (CESA), see Title 14, California Code of Regulations, Section 670.5(b)(5)(A).

LEGISLATIVE AND COMMISSION POLICIES, LEGAL MANDATES AND STANDARDS

The FGC policy for threatened species is, in part, to: "Protect and preserve all native species...and their habitats...." This policy also directs the Department to work with all interested persons to protect and preserve sensitive resources and their habitats. Consistent with this policy and direction, the Department is enjoined to implement measures that assure protection for the Swainson's hawk.

The California State Legislature, when enacting the provisions of CESA, made the following findings and declarations in Fish and Game Code Section 2051:

> a) "Certain species of fish, wildlife, and plants have been rendered extinct as a consequence of man's activities, untempered by adequate concern and conservation";
>
> b) "Other species of fish, wildlife, and plants are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment because of overexploitation, disease, predation, or other factors (emphasis added)";and
>
> c) "These species of fish, wildlife, and plants are of ecological, educational, historical, recreational, esthetic, economic, and scientific value to the people of this state, and the conservation, protection, and enhancement of these species and their habitat is of statewide concern" (emphasis added).

The Legislature also proclaimed that it "is the policy of the state to conserve, protect, restore, and enhance any endangered or threatened species and its habitat and that it is the intent of the Legislature, consistent with conserving the species, to acquire lands for habitat for these species" (emphasis added).

Section 2053 of the Fish and Game Code states, in part, "it is the policy of the state that state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species and or its habitat which would prevent jeopardy" (emphasis added).

Section 2054 states "The Legislature further finds and declares that, in the event specific economic, social, and or other conditions make infeasible such alternatives, individual projects may be approved if appropriate mitigation and enhancement measures are provided" (emphasis added).

Loss or alteration of foraging habitat or nest site disturbance which results in:

(1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be a violation of Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (DFG v. ACID, 8 CA App.4, 41554). The essence of the decision emphasized that the intent and purpose of CESA applies to all activities that take or kill endangered or threatened species, even when the taking is incidental to otherwise legal activities. To avoid potential violations of Fish and Game Code Section 2080, the Department recommends and encourages project sponsors to obtain 2081 Management Authorizations for their projects.

Although this report has been prepared to assist the Department in working with the development community, the prohibition against take (Fish and Game Code Section 2080) applies to all persons, including those engaged in agricultural activities and routine maintenance of facilities. In addition, sections 3503, 3503.5, and 3800 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

To avoid potential violation of Fish and Game Code Section 2080 (i.e. killing of a listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1 - September 15 annually). Delineation of specific activities which could cause nest abandonment (take) of Swainson's hawk during the nesting period should be done on a case-by-case basis.

CEQA requires a mandatory findings of significance if a project's impacts to threatened or endangered species are likely to occur (Sections 21001 {c}, 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports findings of Overriding Consideration. The CEQA Lead Agency's Findings of Overriding Consideration does not eliminate the project sponsor's obligation to comply with Fish and Game Code Section 2080.

NATURAL HISTORY

The Swainson's hawk (*Buteo swainsoni*) is a large, broad winged buteo which frequents open country. They are about the same size as a red-tailed hawk (*Buteo jamaicensis*), but trimmer, weighing approximately 800-1100 grams (1.75 - 2 lbs). They have about a 125 cm. (4+foot) wingspan. The basic body plumage may be highly variable and is characterized by several color morphs - light, dark, and rufous. In dark phase birds, the entire body of the bird may be sooty black. Adult birds generally have dark backs. The ventral or underneath sections may be light with a characteristic dark, wide "bib" from the lower throat down to the upper breast, light colored wing linings and pointed wing tips. The tail is gray ventrally with a subterminal dusky band, and narrow, less conspicuous barring proximally. The sexes are similar in appearance; females however, are slightly larger and heavier than males, as is the case in most sexually dimorphic raptors. There are no recognized subspecies (Palmer 1988).

The Swainson's hawk is a long distance migrator. The nesting grounds occur in northwestern Canada, the western U.S., and Mexico and most populations migrate to wintering grounds in the open pampas and agricultural areas of South America (Argentina, Uruguay, southern Brazil). The species is included among the group of birds known as "neotropical migrants". Some individuals or small groups (20-30 birds) may winter in the U.S., including California (Delta Islands). This round trip journey may exceed 14,000 miles. The birds return to the nesting grounds and establish nesting territories in early March.

Swainson's hawks are monogamous and remain so until the loss of a mate (Palmer 1988). Nest construction and courtship continues through April. The clutch (commonly 3-4 eggs) is generally laid in early April to early May, but may occur later. Incubation lasts 34-35 days, with both parents participating in the brooding of eggs and young. The young fledge (leave the nest) approximately 42-44 days after hatching and remain with their parents until they depart in the fall. Large groups (up to 100+ birds) may congregate in holding areas in the fall and may exhibit a delayed migration depending upon forage availability. The specific purpose of these congregation areas is as yet unknown, but is likely related to: increasing energy reserves for migration; the timing of migration; aggregation into larger migratory groups (including assisting the young in learning migration routes); and providing a pairing and courtship opportunity for unattached adults.

Foraging Requirements

Swainson's hawk nests in the Central Valley of California are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures. These open fields and pastures are the primary foraging areas. Major prey items for Central Valley birds include: California voles (*Microtus californicus*), valley pocket gophers (*Thomomys bottae*), deer mice (*Peromyscus maniculatus*), California ground squirrels (*Spermophilus beecheyi*), mourning doves (*Zenaida macroura*), ring-necked pheasants (*Phasianus colchicus*), meadowlarks (*Sturnella neglecta*), other passerines, grasshoppers (*Conocephalinae* sp.), crickets (*Gryllidae* sp.), and beetles (Estep 1989). Swainson's hawks generally search for prey by soaring in open country and agricultural fields similar to northern hariers (*Circus cyaneus*) and ferruginous hawks (*Buteo regalis*). Often several hawks may be seen foraging together following tractors or other farm equipment capturing prey escaping from farming operations. During the breeding season, Swainson's hawks eat mainly vertebrates (small rodents and reptiles), whereas during migration vast numbers of insects are consumed (Palmer 1988).

Department funded research has documented the importance of suitable foraging habitats (e.g., annual grasslands, pasture lands, alfalfa and other hay crops, and combinations of hay, grain and row crops) within an energetically efficient flight distance from active Swainson's hawk nests (Estep pers. comm.). Recent telemetry studies to determine foraging requirements have shown that birds may use in excess of 15,000 acres of habitat or range up to 18.0 miles from the nest in search of prey (Estep 1989, Babcock 1993). The prey base (availability and abundance) for the species is highly variable from year to year, with major prey population (small mammals and insects) fluctuations occurring based on rainfall patterns, natural cycles and agricultural cropping and harvesting patterns. Based on these variables, significant acreages of potential foraging habitat (primarily agricultural lands) should be preserved per nesting pair (or aggregation of nesting pairs) to avoid jeopardizing existing populations. Preserved foraging areas should be adequate to allow additional Swainson's hawk nesting pairs to successfully breed and use the foraging habitat during good prey production years.

Suitable foraging habitat is necessary to provide an adequate energy source for breeding adults, including support of nestlings and fledglings. Adults must achieve an energy balance between the needs of themselves and the demands of nestlings and fledglings, or the health and survival of both may be jeopardized. If prey resources are not sufficient, or if adults must hunt long distances from the nest site, the energetics of the foraging effort may result in reduced nestling vigor with an increased likelihood of disease and/or starvation. In more extreme cases, the breeding pair, in an effort to assure their own existence, may even abandon the nest and young (Woodbridge 1985).

Prey abundance and availability is determined by land and farming patterns including crop types, agricultural practices and harvesting regimes. Estep (1989) found that 73.4% of observed prey captures were in fields being harvested, disced, mowed, or irrigated. Preferred foraging habitats for Swainson's hawks include:

- alfalfa;
- fallow fields;
- beet, tomato, and other low-growing row or field crops;
- dry-land and irrigated pasture;
- rice land (during the non-flooded period); and
- cereal grain crops (including corn after harvest).

Unsuitable foraging habitat types include crops where prey species (even if present) are not available due to vegetation characteristics (e.g. vineyards, mature orchards, and cotton fields, dense vegetation).

Nesting Requirements

Although the Swainson's hawk's current nesting habitat is fragmented and unevenly distributed, Swainson's hawks nest throughout most of the Central Valley floor. More than 85% of the known nests in the Central Valley are within riparian systems in Sacramento, Sutter, Yolo, and San Joaquin counties. Much of the potential nesting habitat remaining in this area is in riparian forests, although isolated and roadside trees are also used. Nest sites are generally adjacent to or within easy flying distance to alfalfa or hay fields or other habitats or agricultural crops which provide an abundant and available prey source. Department research has shown that valley oaks (*Quercus lobata*), Fremont's cottonwood (*Populus fremontii*), willows (*Salix* spp.), sycamores (*Platanus* spp.), and walnuts (*Juglans* spp.) are the preferred nest trees for Swainson's hawks (Bloom 1980, Schlorff and Bloom 1983, Estep 1989).

Fall and Winter Migration Habitats

During their annual fall and winter migration periods, Swainson's hawks may congregate in large groups (up to 100+ birds). Some of these sites may be used during delayed migration periods lasting up to three months. Such sites have been identified in Yolo, Tulare, Kern and San Joaquin counties and protection is needed for these critical foraging areas which support birds during their long migration.

Historical and Current Population Status

The Swainson's hawk was historically regarded as one of the most common and numerous raptor species in the state, so much so that they were often not given special mention in field notes. The breeding population has declined by an estimated 91% in California since the turn of the century (Bloom 1980). The historical Swainson's hawk population estimates are based on current densities and extrapolated based on the historical amount of available habitat. The historical population estimate is 4,284-17,136 pairs (Bloom 1980). In 1979, approximately 375 (± 50) breeding pairs of Swainson's hawks were estimated in California, and 280 (75%) of those pairs were estimated to be in the Central Valley (Bloom 1980). In 1988, 241 active breeding pairs were found in the Central Valley, with an additional 78 active pairs known in northeastern California. The 1989 population estimate was 430 pairs for the Central Valley and 550 pairs statewide (Estep, 1989). This difference in population estimates is probably a result of increased survey effort rather than an actual population increase.

Reasons for decline

The dramatic Swainson's hawk population decline has been attributed to loss of native nesting and foraging habitat, and more recently to the loss of suitable nesting trees and the conversion of agricultural lands. Agricultural lands have been converted to urban land uses and incompatible crops. In addition, pesticides, shooting, disturbance at the nest site, and impacts on wintering areas may have contributed to their decline. Although losses on the wintering areas in South America may occur, they are not considered significant since breeding populations outside of California are stable. The loss of nesting habitat within riparian areas has been accelerated by flood control practices and bank stabilization programs. Smith (1977) estimated that in 1850 over 770,000 acres of riparian habitat were present in the Sacramento Valley. By the mid-1980s, Warner and Hendrix (1984) estimated that there was only 120,000 acres of riparian habitat remaining in the Central Valley (Sacramento and San Joaquin Valleys combined). Based on Warner and Hendrix's estimates approximately 93% of the San Joaquin Valley and 73% of the Sacramento Valley riparian habitat has been eliminated since 1850.

MANAGEMENT STRATEGIES

Management and mitigation strategies for the Central Valley population of the Swainson's hawk should ensure that:

- suitable nesting habitat continues to be available (this can be accomplished by protecting existing nesting habitat from destruction or disturbance and by increasing the number of suitable nest trees); and
- foraging habitat is available during the period of the year when Swainson's hawks are present in the Central Valley (this should be accomplished by maintaining or creating adequate and suitable foraging habitat in areas of existing and potential nest sites and along migratory routes within the state).

A key to the ultimate success in meeting the Legislature's goal of maintaining habitat sufficient to preserve this species is the implementation of these management strategies in cooperation with project sponsors and local, state and federal agencies.

DEPARTMENT'S ROLES AND RESPONSIBILITIES IN PROJECT CONSULTATION AND ADMINISTRATION OF CEQA AND THE FISH AND GAME CODE

The Department, through its administration of the Fish and Game Code and its trust responsibilities, should continue its efforts to minimize further habitat destruction and should seek mitigation to offset unavoidable losses by (1) including the mitigation measures in this document in CEQA comment letters and/or as management conditions in Department issued Management Authorizations or (2) by developing project specific mitigation measures (consistent with the Commission's and the Legislature's mandates) and including them in CEQA comment letters and/or as management conditions in Fish and Game Code Section 2081 Management Authorizations issued by the Department and/or in Fish and Game Code Section 2090 Biological Opinions.

The Department should submit comments to CEQA Lead Agencies on all projects which adversely affect Swainson's hawks. CEQA requires a mandatory findings of significance if a project's impacts to threatened or endangered species are likely to occur (Sections 21001 {c}, 21083. Guidelines 15380, 15064, 15065). Impacts must be: (1) avoided; or (2) appropriate mitigation must be provided to reduce impacts to less than significant levels; or (3) the lead agency must make and support findings of overriding consideration. If the CEQA Lead Agency makes a Finding of Overriding Consideration, it does not eliminate the project sponsor's obligation to comply with the take prohibitions of Fish and Game Code Section 2080. Activities which result in (1) nest abandonment; (2) starvation of young; and/or (3) reduced health and vigor of eggs and nestlings may result in the take (killing) of Swainson's hawks incidental to otherwise lawful activities (urban development, recreational activities, agricultural practices, levee maintenance and similar activities. The taking of Swainson's hawk in this manner may be a violation of Section 2080 of the Fish and Game Code. To avoid potential violations of Fish and Game Code Section 2080, the Department should recommend and encourage project sponsors to obtain 2081 Management Authorizations.

In aggregate, the mitigation measures incorporated into CEQA comment letters and/or 2081 Management Authorizations for a project should be consistent with Section 2053 and 2054 of the Fish and Game Code. Section 2053 states, in part, "it is the policy of the state that state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species and or its habitat which would prevent jeopardy". Section 2054 states: "The Legislature further finds and declares that, in the event specific economic, social, and or other conditions make infeasible such alternatives, individual projects may be approved if appropriate mitigation and enhancement measures are provided."

State lead agencies are required to consult with the Department pursuant to Fish and Game Code Section 2090 to ensure that any action authorized, funded, or carried out by that state agency will not jeopardize the continued existence of any threatened or endangered species. Comment letters to State Lead Agencies should also include a reminder that the State Lead Agency has the responsibility to consult with the Department pursuant to Fish and Game Code Section 2090 and obtain a written findings (Biological Opinion). Mitigation measures included in Biological Opinions issued to State Lead Agencies must be consistent with Fish and Game

Code Sections 2051-2054 and 2091-2092.

NEST SITE AND HABITAT LOCATION INFORMATION SOURCES

The Department's Natural Diversity Data Base (NDDB) is a continually updated, computerized inventory of location information on the State's rarest plants, animals, and natural communities. Department personnel should encourage project proponents and CEQA Lead Agencies, either directly or through CEQA comment letters, to purchase NDDB products for information on the locations of Swainson's hawk nesting areas as well as other sensitive species. The Department's Nongame Bird and Mammal Program also maintains information on Swainson's hawk nesting areas and may be contacted for additional information on the species.

Project applicants and CEQA Lead Agencies may also need to conduct site specific surveys (conducted by qualified biologists at the appropriate time of the year using approved protocols) to determine the status (location of nest sites, foraging areas, etc.) of listed species as part of the CEQA and 2081 Management Authorization process. Since these studies may require multiple years to complete, the Department shall identify any needed studies at the earliest possible time in the project review process. To facilitate project review and reduce the potential for costly project delays, the Department should make it a standard practice to advise developers or others planning projects that may impact one or more Swainson's hawk nesting or foraging areas to initiate communication with the Department as early as possible .

MANAGEMENT CONDITIONS

Staff believes the following mitigation measures (nos. 1-4) are adequate to meet the Commission's and Legislature's policy regarding listed species and are considered as preapproved for incorporation into any Management Authorizations for the Swainson's hawk issued by the Department. The incorporation of measures 1-4 into a CEQA document should reduce a project's impact to a Swainson's hawk(s) to less than significant levels. Since these measures are Staff recommendations, a project sponsor or CEQA Lead agency may choose to negotiate project specific mitigation measures which differ. In such cases, the negotiated Management Conditions must be consistent with Commission and Legislative policy and be submitted to the ESD for review and approval prior to reaching agreement with the project sponsor or CEQA Lead Agency.

Staff recommended Management Conditions are:

1. No intensive new disturbances (e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing

activities) or other project related activities which may cause nest abandonment or forced fledging, should be initiated within 1/4 mile (buffer zone) of an active nest between March 1 - September 15 or until August 15 if a Management Authorization or Biological Opinion is obtained for the project. The buffer zone should be increased to 1/2 mile in nesting areas away from urban development (i.e. in areas where disturbance [e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities] is not a normal occurrence during the nesting season). Nest trees should not be removed unless there is no feasible way of avoiding it. If a nest tree must be removed, a Management Authorization (including conditions to off-set the loss of the nest tree) must be obtained with the tree removal period specified in the Management Authorization, generally between October 1- February 1. If construction or other project related activities which may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site (funded by the project sponsor) by a qualified biologist (to determine if the nest is abandoned) should be required . If it is abandoned and if the nestlings are still alive, the project sponsor shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within 1/4 mile of an active nest should not be prohibited.

2. Hacking as a substitute for avoidance of impacts during the nesting period may be used in unusual circumstances after review and approval of a hacking plan by ESD and WMD. Proponents who propose using hacking will be required to fund the full costs of the effort, including any telemetry work specified by the Department.

3. To mitigate for the loss of foraging habitat (as specified in this document), the Management Authorization holder/project sponsor shall provide Habitat Management (HM) lands to the Department based on the following ratios:

(a) Projects within 1 mile of an active nest tree shall provide:

- one acre of HM land (at least 10% of the HM land requirements shall be met by fee title acquisition or a conservation easement allowing for the active management of the habitat, with the remaining 90% of the HM lands protected by a conservation easement [acceptable to the Department] on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk) for each acre of development authorized (1:1 ratio); or

- one-half acre of HM land (all of the HM land requirements shall be met by fee title acquisition or a conservation easement [acceptable to the Department] which allows for the active management of the habitat for prey production on the HM lands) for each acre of development authorized (0.5:1 ratio).

(b) Projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree shall provide 0.75 acres of HM land for each acre of urban development authorized (0.75:1 ratio). All HM lands protected under this requirement may be protected through fee title acquisition or conservation easement (acceptable to the Department) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.

(c) Projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree shall provide 0.5 acres of HM land for each acre of urban development authorized (0.5:1 ratio). All HM lands protected under this requirement may be protected through fee title acquisition or a conservation easement (acceptable to the Department) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.

4. Management Authorization holders/project sponsors shall provide for the long-term management of the HM lands by funding a management endowment (the interest on which shall be used for managing the HM lands) at the rate of $400 per HM land acre (adjusted annually for inflation and varying interest rates).

Some project sponsors may desire to provide funds to the Department for HM land protection. This option is acceptable to the extent the proposal is consistent with Department policy regarding acceptance of funds for land acquisition. All HM lands should be located in areas which are consistent with a multi-species habitat conservation focus. Management Authorization holders/project sponsors who are willing to establish a significant mitigation bank (> 900 acres) should be given special consideration such as 1.1 acres of mitigation credit for each acre preserved.

PROJECT SPECIFIC MITIGATION MEASURES

Although this report includes recommended Management Measures, the Department should encourage project proponents to propose alternative mitigation strategies that provide equal or greater protection of the species and which also expedite project environmental review or issuance of a CESA Management Authorization. The Department and sponsor may choose to conduct cooperative, multi-year field studies to assess the site's habitat value and determine its use by nesting and foraging Swainson's hawk. Study plans should include clearly defined criteria for judging the project's impacts on Swainson's hawks and the methodologies (days of monitoring, foraging effort/efficiency, etc.) that will be used.

The study plans should be submitted to the Wildlife Management Division and ESD for review. Mitigation measures developed as a result of the study must be reviewed by ESD (for consistency with the policies of the Legislature and Fish and Game Commission) and approved by the Director.

EXCEPTIONS

Cities, counties and project sponsors should be encouraged to focus development on open lands within already urbanized areas. Since small disjunct parcels of habitat seldom provide foraging habitat needed to sustain the reproductive effort of a Swainson's hawk pair, Staff does not recommend requiring mitigation pursuant to CEQA nor a Management Authorization by the Department for infill (within an already urbanized area) projects in areas which have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree.

REVIEW

Staff should revise this report at least annually to determine if the proposed mitigation strategies should be retained, modified or if additional mitigation strategies should be included as a result of new scientific information.

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BURROWING OWL PROTOCOL

DRAFT
STAFF REPORT ON BURROWING OWL MITIGATION

Introduction

~~The Legislature and the Fish and Game Commission~~ have developed the policies, standards and regulatory mandates to protect native species of fish and wildlife. In order to determine how the Department of Fish and Game (Department) could judge the adequacy of mitigation measures designed to offset impacts to burrowing owls *(Speotyto cunicularia)* staff (WMD, ESD and Regions) has prepared this report. To ensure compliance with legislative and commission policy, mitigation requirements which are consistent with this report should be incorporated into: (1) Department comments to Lead Agencies and project sponsors pursuant to the California Environmental Quality Act (CEQA); and (2) other authorizations the Department gives to project proponents for projects impacting burrowing owls.

This report is designed to provide the Department (including regional offices and divisions), CEQA Lead Agencies and project proponents the context in which the Environmental Services Division (ESD) will review proposed project specific mitigation measures. This report also includes preapproved mitigation measures which have been judged to be consistent with policies, standards and legal mandates of the Legislature, the Fish and Game Commission and the Department's public trust responsibilities. Implementation of mitigation measures consistent with this report are intended to help achieve the conservation of burrowing owls and should compliment multi-species habitat conservation planning efforts currently underway.

A range-wide conservation strategy for this species should also be prepared. Any range-wide conservation strategy should establish criteria for avoiding the need to list the species pursuant to either the California or federal Endangered Species Acts through preservation of existing habitat, population expansion into former habitat, recruitment of young into the population, and other specific efforts.

California's burrowing owl population is clearly declining and, if declines continue, the species may qualify for listing. Because of the intense pressure for development of suitable burrowing owl nesting and foraging habitat (open, flat and gently rolling grasslands and grass/shrub lands) in California, conflicts between owls and development projects often occur. Owl survival can be affected by disturbance and foraging habitat loss even when impacts to individual birds and nests/burrows are avoided. Inadequate information about the presence of owls is available prior to project approval if often lacking. Following project approval there is no legal mechanism through which to seek mitigation other than avoidance of occupied burrows or nests. The absence of standardized survey methods often impedes consistent impact assessment.

Burrowing Owl Habitat Description

Burrowing owl habitat can be found in annual and perennial grasslands, deserts, arid scrublands characterized by low-growing vegetation (Zarn 1974). Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface. Burrows are the essential component of burrowing owl habitat. Both natural and artificial burrows provide protection, shelter, and nests for burrowing owls (Henny and Blus 1981). Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but also may use man-made structures such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement.

Occupied Burrowing Owl Habitat

Burrowing owls may use a site for breeding, wintering, foraging, and/or migration stopovers. Occupancy of suitable burrowing owl habitat can be verified at a site by detecting a burrowing owl, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance. Burrowing owls exhibit high site fidelity, reusing burrows year after year (Rich 1984, Feeney 1992). A site should be assumed occupied if at least one burrowing owl has been observed occupying a burrow there within the last three years (Rich 1984).

Project Review

The measures included in this report are intended to provide a decision-making process that should be implemented whenever there is potential for an action or project to adversely affect burrowing owls. For projects subject to the California Environmental Quality Act (CEQA), the process begins by conducting surveys to determine if burrowing owls are foraging or nesting on or adjacent to the project site. If surveys confirm that the site is occupied habitat, mitigation measures to minimize impacts to burrowing owls, their burrows and foraging habitat should be incorporated into the CEQA document as enforceable conditions. The measures in this document are intended to conserve the species by protecting and maintaining viable populations of the species throughout their range in California. This may often result in protecting and managing habitat for the species at sites away from rapidly urbanizing/developing areas. Projects and situations vary and mitigation measures should be adapted to fit specific circumstances.

Projects not subject to CEQA review may have to be handled separately since the legal handle the Department has to deal with burrowing owls in this situation are often limited.

Legal Status

The burrowing owl is a migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R. 21). Sections 3503, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. To avoid violation of the take provisions of these laws generally requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15, annually). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered "talking" and is potentially punishable by fines and/or imprisonment.

The burrowing owl is a Species of Special Concern to California because of declines of suitable habitat and both localized and statewide population declines. Guidelines for the Implementation of the California Environmental Quality Act (CEQA) provide that a species be considered as endangered or "rare" regardless of appearance on a formal list for the purposes of the CEQA (Guidelines, Section 15380, subsections b and d). The CEQA requires a mandatory findings of significance if impacts to threatened or endangered species are likely to occur. (Sections 2 1001 {c), 21083. Guidelines 15380, 15064, 15065). To be legally adequate, mitigation measures must be capable of "avoiding the impact altogether by not taking a certain action or parts of an action"; "minimizing impacts by limiting the degree or magnitude of the action and its implementation"; "rectifying the impact by repairing, rehabilitating or restoring the impacted environment"; "or reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action." (Guidelines, Section 15370). Avoidance or mitigation to reduce impacts to less than significant levels must be included in a project or the CEQA lead agency must make and justify findings of overriding considerations.

Impact Assessment

Habitat Assessment

The project site and a 150 meter (approximately 500 ft.) buffer (where possible and appropriate based on habitat) should be surveyed to assess the presence of burrowing owls and their habitat (Thomsen 1971, Martin 1973). If occupied habitat is detected on or adjacent to the site, measures to avoid, minimize, or mitigate the project's impacts to the species should be incorporated into the project, including burrow preconstruction surveys to ensure avoidance of direct take. It is also recommended that preconstruction surveys be conducted if the species was not detected but is likely to occur on the project site.

Burrow surveys

Burrow surveys should be conducted by walking suitable habitat on the entire project site and (where possible) in areas within 150 meters (approx. 500 ft.) of the project impact zone. The 150-meter buffer zone is surveyed to identify burrows outside of the project area which may be impacted by factors such as noise and vibration (heavy equipment, etc.) during project construction. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (approx. 100 ft.), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To effectively survey large projects (100 acres or larger), two or more surveyors should be used to walk adjacent transects. To avoid impacts to owls from surveyors, owls and/or occupied burrows should be avoided by a minimum of 50 meters (approx. 160 ft.). Disturbance to occupied burrows should be avoided during all seasons. Surveys should be conducted during both the wintering and nesting seasons, unless the species is detected on the first survey.

Definition of impacts

The following should be considered impacts to the species:

- Disturbance within 50 meters (approx. 160 ft.) which may result in harassment of owls at occupied burrows;

- Destruction of natural and artificial burrows (culverts, concrete slabs and debris piles that provide shelter to burrowing owls); and

- Destruction and/or degradation of foraging habitat adjacent (within 100 meters) of an occupied burrow(s).

Written Report

A report should be prepared for the Department that gives the results of the survey. The report should include:

- Date and time of visit(s) including weather and visibility conditions and survey methodology;

- A description of the site including location, size, topography, vegetation communities, and animals observed during visit(s);
- An assessment of habitat suitability for burrowing owls;
- A map and pictures of the site;
- Results of survey transects including a map showing the location of all burrow(s) (natural or artificial) and owl(s), including the numbers at each burrow if present and tracks, feathers, pellets, or other items (prey remains, animal scat);
- The behavior of owls during the surveys should be carefully recorded (from a distance) and included;
- Both winter and nesting season surveys should be summarized along with any productivity information and a map showing territorial boundaries and home ranges; and
- Any historical information (local bird club, Audubon society, other biologists, etc.) regarding the presence of burrowing owls on site should included.

Mitigation

The objective of these measures is to avoid and minimize impacts to burrowing owls at a project site and preserve habitat that will support viable owl populations. If burrowing owls are detected using the project area, mitigation measures to minimize and offset the potential impacts should be included as enforceable measures during the CEQA process.

Mitigation actions should be carried out prior to the burrowing owl breeding season, generally from February 1 through August 31 (Thomsen 1971, Zarn 1974). Since the timing of nesting activity may vary with latitude and climatic conditions, this time frame should be adjusted accordingly. Preconstruction surveys of suitable habitat at the project site(s) and buffer zone(s) should be conducted to ensure no additional burrowing owls have established territories since the initial surveys. If ground disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site should be resurveyed.

Although the mitigation measures may be included as enforceable project conditions in the CEQA process, it may also be desirable to formalize them in an Memorandum of Understanding (MOU) between the Department and the project sponsor. An MOU is needed when lands (fee title or conservation easement) are being transferred to the Department.

Specific Mitigation Measures

1. Occupied burrows should not be disturbed during the nesting season (February I through August 31) unless a qualified biologist approved by the Department verifies that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and capable of independent survival.

2. To offset the loss of foraging and burrow habitat, a minimum of 6.5 acres of foraging habitat (calculated on a 100-m (approx. 300 ft.) foraging radius around the burrow) per pair or unpaired resident bird, should be acquired and permanently protected. The protected lands should be adjacent to occupied burrowing owl habitat and at a location acceptable to the Department. The protected habitat should contribute to the long-term conservation of the species and the ecosystem(s) on which they depend.

3. When destruction of occupied burrows is unavoidable, existing unsuitable burrows should be enhanced (enlarged or cleared of debris) or created (by installing artificial burrows) in a ratio of 1:1 at the protected lands site.

4. If owls must be moved away from the disturbance area, passive relocation techniques should be used rather than trapping. At least one week should be allowed to accomplish this and allow the owls to acclimate to alternate burrows.

5. The project sponsor should provide funding for management and monitoring of the protected lands. The monitoring plan should include mitigation success criteria and an annual report to the California Department of Fish and Game.

Impact Avoidance

If avoidance is the preferred method of dealing with potential project impacts, then no disturbance should occur within 50 m (approx. 160 ft.) of occupied burrows during the nonbreeding season of September 1 through January 31 or within 75 m (approx. 250 ft.) during the breeding season of February 1 through August 31. Avoidance also requires that a minimum of 6.5 acres of foraging habitat be **permanently** preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird. The configuration of the protected habitat should be approved by the Department.

Active relocation

Owls should be excluded from burrows in the immediate impact zone and within a 50 *m* (approx. 160 ft.) buffer zone by installing one-way doors in burrow entrances. One-way doors should be left in place 48 hours to insure owls have left the burrow before excavation. One natural or artificial burrow should be provided for each burrow that will be excavated in the project impact zone. The project area should be monitored daily for one week to confirm owl use of burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible ~~plastic pipe or burlap bags should be inserted into the tunnels during excavation to~~ maintain an escape route for any animals inside the burrow.

Passive Relocation

One natural or artificial burrow should be provided for each burrow that will be excavated in the project impact zone. The project area should be monitored daily until the owls have relocated to the new burrow. The formerly occupied burrows may then be excavated. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags should be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.

Projects not subject to regulatory action

The Department is often contacted regarding the presence of burrowing owls on construction sites, parking lots and other areas for which there is no CEQA action or for which the CEQA process has been completed. In these situations, the Department should seek to reach agreement with the project sponsor to implement the specific mitigation measures described above. If they are unwilling to do so, active relocation should not normally be an option, rather they should be advised that passive relocation is their only option.

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VALLEY ELDERBERRY LONGHORN BEETLE PROTOCOL

May 31, 1994

General Compensation Guidelines for the Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) was listed as a threatened species in 1980 (45 Federal Register 52807). This animal is fully protected under the Endangered Species Act of 1973, as amended (Act). The larvae of the beetle feed and mature within elderberry (*Sambucus* sp.) shrubs. Use of the plants by the early stages of this insect, a wood borer, is very rarely apparent. Frequently, the only exterior evidence of use of the shrub is the exit hole created by the larvae prior to the pupal stage. The beetle has been found in elderberry plants with stems possessing a diameter of one inch or greater. The range of the animal extends from Redding south to Bakersfield and from the western foothills of the Sierra Nevada to the eastern foothills of the coast range (Barr 1991; U.S. Fish and Wildlife Service 1984).

An adequate survey should be completed by a qualified biologist for the valley elderberry longhorn beetle and its elderberry foodplant if the proposed project site is located within the range of the animal. The report should include the precise location of all elderberry shrubs, their height and diameter, the presence of adult exit holes and the general condition of the plants. A map should also be included with the report indicating the major vegetational communities present on site. The completed study should be sent to the U.S. Fish and Wildlife Service (Service) for review.

Take incidental to an otherwise lawful activity may be authorized by one of two procedures. If a Federal agency is involved with the permitting, funding, or carrying out of the project, then initiation of formal consultation between that agency and the Service pursuant to section 7 of the Act is required if it is determined that the proposed project may affect a federally listed species. Such consultation would result in a biological opinion that addresses the anticipated effects of the project to the listed species and may authorize a limited level of incidental take. If a Federal agency is not involved with the project, and federally listed species may be taken as part of the project, then an incidental take permit pursuant to section 10(a) of the Act would need to be obtained. The Service may issue such a permit upon completion of a satisfactory conservation plan for the listed species that would be affected by the project.

The following mitigations should be undertaken for the valley elderberry longhorn beetle:

Avoid Habitat Whenever Possible

1. Fence and flag each elderberry shrub or group of these plants so that the construction crew can avoid them. There should be a setback of at least twenty feet from the dripline of each elderberry shrub. The area must be designated to prevent isolation of the beetle population from other

Provide Habitat for the Beetle in Perpetuity

Weeds and other plants that are not native to the mitigation area should be removed at least once a year or at the discretion of the Service or the California Department of Fish and Game. Mechanical means should be used; herbicides should be prohibited.

Measures should be taken to insure that no pesticides, herbicides, or other chemical agents enters the mitigation area. No spraying of these agents should be conducted within one hundred (100) feet of the area or if they have the potential to drift, flow or be washed into the area in the opinion of biologists or law enforcement personnel from the California Department of Fish and Game or the Service. The Service should be provided with written documentation that this condition will be carried out in perpetuity.

No dumping of trash or other material should occur within the mitigation area. Any trash or other material should be removed within ten (10) working days of discovery. The Service should be provided with written documentation that this condition will be carried out in perpetuity.

Biologists and law enforcement personnel from the California Department of Fish and Game and the Service should be given complete access to the project site to monitor transplanting activities. Personnel from both these agencies should be given complete access to the project and the mitigation area to monitor the valley elderberry longhorn beetle and its elderberry shrub habitat in perpetuity.

If appropriate, permanent fencing should be placed completely around the mitigation area to prevent unauthorized entry by off-road vehicles, equestrians, or other parties that may damage or destroy the habitat of the beetle. The applicant should receive approval from the Service that the fencing is acceptable prior to initiation of the mitigation program.

If appropriate, a minimum of two prominent signs should be placed and maintained in perpetuity at the mitigation area noting that the site is habitat of the federally threatened valley elderberry longhorn beetle and including information on the beetle's biology and ecology. The signs should be approved by the Service. They should be replaced or repaired within ten (10) working days if they are found to be damaged or destroyed.

Monitoring Program

The population of the adults of the threatened valley elderberry longhorn beetle, the general condition of the mitigation area, and the elderberry plants and associated native plants located at the mitigation area should be monitored by a qualified biologist annually for a period of ten years beginning with the date the mitigation program is initiated. Two visits between February 14 and June 30 of each year should be made beginning the year the mitigation is begun. The study should include a population census of the adult beetles, including the actual number of animals observed, their condition, behavior, and precise location at the site; a census of the elderberry shrubs and associated native plants, including the number of plants observed, their size, and condition; and a general assessment of the habitat, including any real or potential threats to the beetle, and its food plants, populations located in adjacent areas. The area should be designated as habitat for the valley elderberry longhorn beetle in perpetuity.

Brief contractors on the requirements to avoid damaging the elderberry plants and the possible penalties for not complying with these provisions. These areas should be adequately signed with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of at least twenty feet.

Work crews should be informed about the status of the threatened valley elderberry longhorn beetle and the need to protect its elderberry host plant. All on-site personnel should receive instruction regarding the presence of the federally protected animal.

Transplant Elderberry Shrubs

Elderberry shrubs should be transplanted if they can not be avoided by the proposed project. All elderberry plants with a stem diameter of 1.0 inch or greater in size at ground level should be transplanted to a mitigation area. In some cases, a shrub that would be extremely difficult to remove because of access problems or one that is in such poor condition that it is unlikely to survive being transplanted may be exempted from this requirement at the Service's discretion.

A qualified biologist (monitor) should be on-site for the duration of the transplanting of the elderberry shrubs to insure that no unnecessary take of the valley elderberry longhorn beetle occurs. The biologist utilized should have the authority to stop all activities until appropriate corrective measures have been completed. The biologist should also be required to report violations immediately to the Service and the California Department of Fish and Game.

1. Timing.--Elderberry shrubs with stems equal to or greater than 1.0 inches in diameter in ground level should be transplanted when the plant is dormant (approximately November through the first two weeks in February) after they have lost their leaves and, thus, the plants essentially are not transpiring or actively growing. Planting during the non-growing season will reduce the shock to the plant and increase transplantation success.

2. Procedure to plant elderberry shrubs.

a. Cut tree back to 3 to 6 feet from the ground or to 50 percent of its height (whichever is greater) by removing branches and stems above this height. The trunk and all stems greater than 1.0 inches in diameter measured at ground level should be replanted.

b. Excavate a hole 3 to 4 feet deep to receive the planting;

c. Dig plant up using Vemeer spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and replant immediately at the compensation site. Move plant only by the root ball. If the plant is to be moved and transplanted off site, wrap the root ball in burlap and secure with wire. Dampen burlap with water, as necessary, to keep root ball wet;

d. The elderberry shrub should be planted in a water retention basin 40 feet by 40 feet in size (1600 square feet). The root ball should be planted so it is level with the existing ground. Compact the soil sufficiently so that settlement does not occur. A basin 40 feet by 40 feet should be provided for every five seedling elderberry plants and associated native vegetation (see number 4 below);

e. Saturate soil with water. Do not use fertilizers or other supplements or paint the tips of stems with pruning substance as the effects of these compounds on the beetle are unknown;

f. Monitor to ascertain if additional watering is necessary:

1. if sandy, well-drained soil, plants may need to be watered weekly or possibly twice monthly;

2. if clay, poorly-drained soil, it may not be necessary to water after the initial saturation.

A drip watering system and timer would be ideal. However, in situations where this is not possible, a water truck or other apparatus may be used.

Sixteen hundred (1600) square feet should be provided for each avoided elderberry shrub; each transplanted elderberry shrubs; and every five seedling elderberry plants and associated native plants. The mitigation area should be designated as habitat for the valley elderberry longhorn beetle in perpetuity. The mitigation area should be designated to prevent isolation of the beetle population from other populations located in adjacent areas. A conservation easement or fee title for the mitigation area should be given to a resource agency or appropriate private organization. The fee title or conservation easement should include adequate funding that ensures management of the mitigation area in perpetuity. The Service should be provided with a map and written details specifically identifying the mitigation area prior to the initiation of the mitigation program.

3. Procedure to plant additional stems.--Each stem 1.0 inches or greater in diameter at ground level that is moved or destroyed will be replaced with seedling elderberry plants in the mitigation area using a ratio from 2:1 to 5:1. This replacement requirement applies even if the elderberry shrub is transplanted. Replacement stock should be obtained from local sources. The approval of the Service should be obtained prior to initiating the compensation program. The ratio is determined as follows:

Ratio of 2:1 Elderberry shrubs with stem diameters 1.0 inch or greater at ground level and there are no adult emergence holes.

Ratio of 3:1 Elderberry shrubs with stem diameters 1.0 inch or greater at ground level. Beetles are present as evidenced by emergence holes, but occur in 50 percent or less of the shrubs.

Ratio of 5:1 Elderberry shrubs with stem diameters 1.0 inch or greater in size at ground level. Beetles are present as evidenced by emergence holes, and occur in 51 percent or greater of the shrubs.

4. Plant associated native plants: Recent studies have found that beetles are more abundant in more dense native plant communities with a mature overstory and mixed understory versus a young overstory and low understory. Therefore, a mix of native plants associated with the elderberry shrubs at the

project site should be planted at a ratio of at least two specimens of all native tree and shrub species for every five elderberry stems equal to or greater than 1 inch in diameter at ground level. These plantings also must be monitored with the same survival criteria utilized for the elderberry plants. The saplings and seedlings, as appropriate, should be from native populations at the project site or from the immediate project vicinity. The approval by the Service of the native plant donor sites must be obtained prior to initiation of any of the revegetation work.

Example 1

Total number of elderberry shrubs on project site: 20
Associated native plants: interior live oak (*Quercus wislizenii*), foothill pine (*Pinus sabiniana*), and California buckeye (*Aesculus californica*)
Number of elderberry shrubs with evidence of the the valley elderberry longhorn beetle: 12
Number of stems equal or greater than 1 inch: 100
Compensation: Transplant the 20 elderberry shrubs that will be impacted, plant 500 elderberry seedlings (ratio of 5:1), plant 40 interior live oaks, 40 foothill pines, 40 California buckeyes
Total area required: 4.41 acres

Example 2

Total number of elderberry shrubs: 10
Associated native plants: interior live oak (*Quercus wislizenii*)
Number of elderberry shrubs with evidence of the valley elderberry longhorn beetle: 0
Number of stems greater or equal to 1.0 inch: 0
Compensation required - None

Example 3

Total number of elderberry shrubs: 5
Associated native plants: cottonwood (*Populus fremontii*)
Number of elderberry shrubs with evidence of the valley elderberry longhorn beetle: 0
Number of stems equal or greater than 1.0 inch: 15
Compensation required: Transplant the 5 elderberry shrubs, plant 30 elderberry seedlings (ratio 2:1), plant 6 cottonwoods
Total area required: .40 acre

Example 4

Total number of elderberry shrubs: 25
Associated native plants: none
Number of elderberry shrubs with evidence of the the valley elderberry longhorn beetle: 7
Number of stems equal or greater than 1.0 inch: 150
Compensation required: Transplant the 25 elderberry shrubs, plant 450 stems (ratio 3:1)
Total area required: 4.22 acres

such as erosion, excessive grazing by livestock, off-road vehicle use, etc. Random-walk counts should be used; mark-recapture or other methods that involve handling or harassment shall not be utilized. The materials and methods that will be utilized for this study should be reviewed and approved by the Service. All appropriate Federal and State permits should be obtained prior to initiating the field studies.

A written report analyzing the data from the monitoring of the threatened valley elderberry longhorn beetle at the mitigation area and the elderberry shrubs and associated native plants located at the project site should be conveyed to the Service and the Department of Fish and Game (Supervisor, Environmental Service, Department of Fish and Game, 1416 Ninth Street, Sacramento, California 95814, and Staff Zoologist, California Natural Diversity Data Base, Department of Fish and Game, 1220 S Street, Sacramento, California 95814) by December 31 of each year for a ten year period beginning with the date the program is initiated. The report should include, but not be limited to, the raw data collected during the field surveys and a basic analysis of the population dynamics of the valley elderberry longhorn beetle at the compensation sites. The population size (qualitative) should be estimated for the beetle. Maps showing where the individual adult beetles and exit holes were observed should be included. For the elderberry shrubs and associated native plants the following should be analyzed: the survival rate, condition, and size of the plants. Real and likely future threats should be addressed along with suggested mitigations (e.g. fencing access to off-road vehicles, more frequent removal of exotic vegetation, etc.). The original field notes, photographs, correspondence, and all other pertinent material, as well as a copy of the report should be deposited and accessioned into the Entomology Department, California Academy of Sciences, Golden Gate Park, San Francisco, California 94118 by December 31 of each year for a ten year period beginning with the date the mitigation program is initiated. The Sacramento Field Office should be provided with the accession numbers given to this material by the California Academy of Sciences.

Success Criteria

A survival rate of 80% of the elderberry shrubs and associated native plants should be obtained at the end of the ten year monitoring program. The Service will make the determination as to the compensator's replacement responsibilities arising from circumstances beyond its control such as plants damaged or killed as the result of severe flooding or vandalism.

Future Revisions

Revegetating with elderberries and the responses of the beetle to such revegetation efforts is a relatively new procedure. As data become available on which to evaluate this technique, revisions to these guidelines are anticipated.

Service Contact

These guidelines were prepared by Chris Nagano, Sacramento Field Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Room E-1823, Sacramento, California 95825. Please refer any questions on these guidelines to him at the above address or call 916/978-4866 extension 358.

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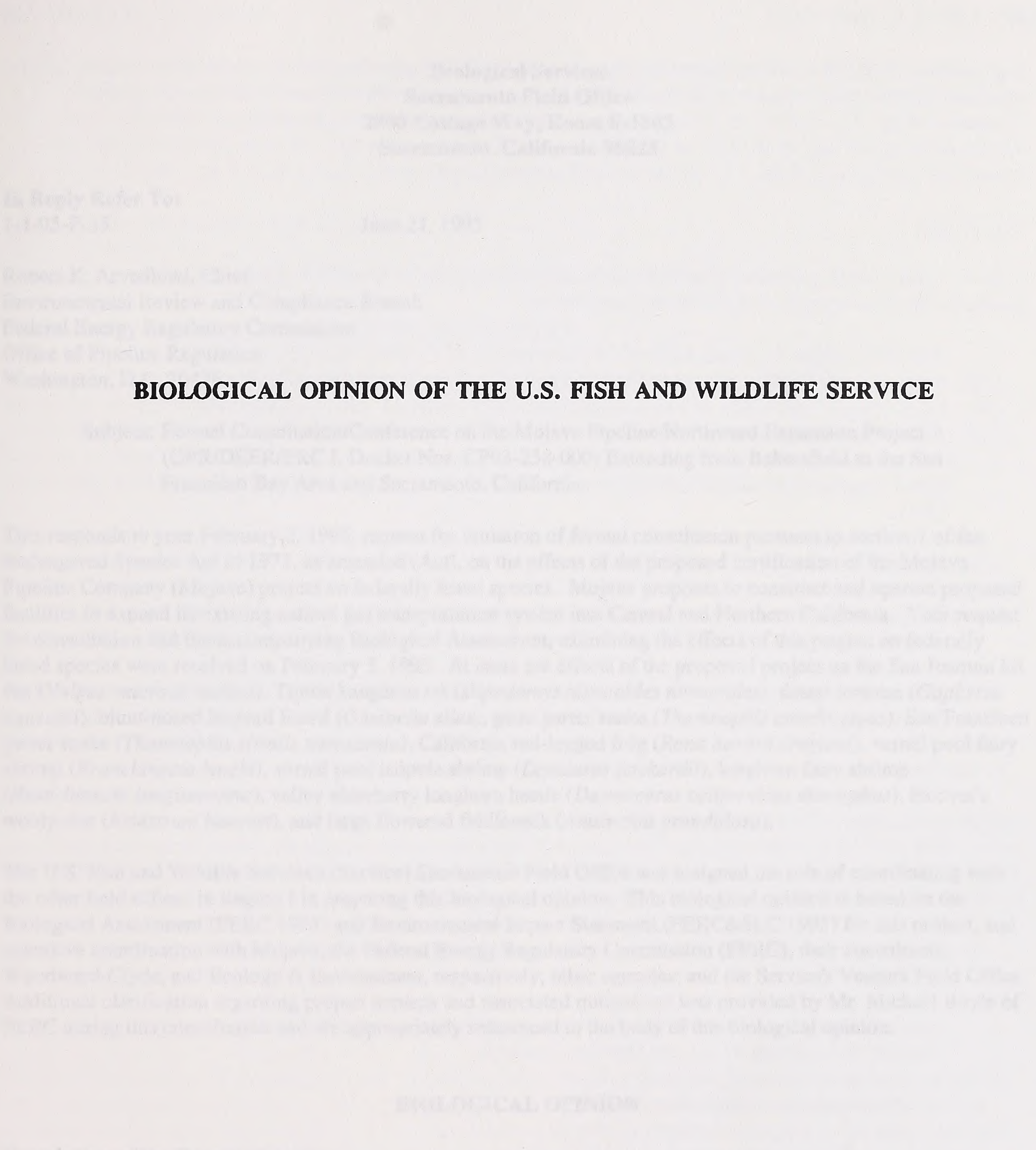
APPENDIX I

BIOLOGICAL OPINIONS



BIOLOGICAL OPINION OF THE U.S. FISH AND WILDLIFE SERVICE

Ecological Services
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825

In Reply Refer To:
1-1-95-F-35 June 21, 1995

Robert K. Arvedlund, Chief
Environmental Review and Compliance Branch
Federal Energy Regulatory Commission
Office of Pipeline Regulation
Washington, D.C. 20426

Subject: Formal Consultation/Conference on the Mojave Pipeline Northward Expansion Project (OPR/DEER/ERC I, Docket Nos. CP93-258-000) Extending from Bakersfield to the San Francisco Bay Area and Sacramento, California

This responds to your February 2, 1995, request for initiation of formal consultation pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act), on the effects of the proposed certification of the Mojave Pipeline Company (Mojave) project on federally listed species. Mojave proposes to construct and operate proposed facilities to expand its existing natural gas transportation system into Central and Northern California. Your request for consultation and the accompanying Biological Assessment, examining the effects of this project on federally listed species were received on February 3, 1995. At issue are effects of the proposed project on the San Joaquin kit fox (*Vulpes macrotic mutica*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), desert tortoise (*Gopherus agassizii*), blunt-nosed leopard lizard (*Gambelia silus*), giant garter snake (*Thamnophis couchi gigas*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), California red-legged frog (*Rana aurora draytoni*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), longhorn fairy shrimp (*Branchinecta longiantenna*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Hoover's wooly-star (*Eriastrum hooveri*), and large flowered fiddleneck (*Amsinckia grandiflora*).

The U.S. Fish and Wildlife Service's (Service) Sacramento Field Office was assigned the role of coordinating with the other field offices in Region I in preparing this biological opinion. This biological opinion is based on the Biological Assessment (FERC 1995) and Environmental Impact Statement (FERC&SLC 1995) for this project, and extensive coordination with Mojave; the Federal Energy Regulatory Commission (FERC); their consultants, Woodward-Clyde, and Ecology & Environment, respectively; other agencies; and the Service's Ventura Field Office. Additional clarification regarding project impacts and associated mitigations was provided by Mr. Michael Boyle of FERC during this consultation and are appropriately referenced in the body of this biological opinion.

BIOLOGICAL OPINION

Description of the Proposed Action

Mojave's proposed expansion would extend its existing system northward from the Sycamore Meter Station near Bakersfield on the East Side Lateral to the Sacramento and San Francisco Bay areas. In addition to the proposed North and Sacramento Mainlines, Mojave would construct various laterals, loops, compressor stations, and add compression at the existing Topock Compressor Station.

The customers that would be served by Mojave's project are industrial and manufacturing companies, electric cogeneration plants, and municipalities. In addition to the Core Customer Group to be served by the project, Mojave is negotiating with two other groups of customers, only one of which would be served in addition to the Core Customer Group. The facilities to be built would depend on the locations of these additional customers. The Service analyzed the impact of all of the facilities that would be required to serve all of the potential additional customers even though not all of the facilities would actually be built.

Core Project

Mojave would construct pipelines 4 to 30 inches in diameter to serve the Core Customer Group. This core project system would be composed of the following components:

A North Mainline from near Bakersfield northwest for 16.5 miles, resuming west of Lindsay and continuing north and west for 222 miles to the San Francisco Bay Area, terminating in Martinez.

A Sacramento Mainline from near Ripon north for 63.4 miles, terminating southwest of Sacramento.

Two loops (Loops 1 and 2) of the existing Mojave Mainline between Topock and Daggett for a total of 52.2 miles.

A 4.0-mile loop of the East Side Lateral.

Ten segments extending from the North Mainline for a total of 158.5 miles called the Lindsay, Coalinga, Sanger, Livingston, Ceres, Modesto "B," Tracy, Palo Alto, Antioch, and Fremont Segments.

Two new compressor stations at Amboy and Daggett and upgrading of the existing compressor station at Topock.

Thirty-nine meter stations at various points in the system.

Additional Facilities to Serve Alternative Customer Group 1

To serve Alternative Customer Group 1 in addition to the Core Customer Group, the core project would be modified by constructing the following additional segments, meter stations, and a compressor station:

A 51.5-mile-long Famoso Alternative Segment to connect the two disjointed segments of the core project North Mainline.

Five additional segments extending from the core project for a total of 47.4 miles called the Kingsburg, Turlock "A," Lathrop, Tracy, and Oakland Segments.

A new compressor station at Famoso.

Sixteen additional meter stations at various points along the five additional pipeline segments.

Additional Facilities to Serve Alternative Customer Group 2

To serve Alternative Customer Group 2 instead of Group 1, the core project would be modified by adding the following components:

A 42.6-mile-long Lindsay Alternative Segment to connect the southern segment of the core project North Mainline with the Lindsay Segment.

Thirteen additional segments extending from the core project for a total of 77.2 miles called the McFarland, Malaga, Madera, Fairmead, Turlock, Ripon, Sacramento (A-159), Tracy (A-160), Tracy (A-161), Antioch (A-174), Martinez (A-172), Hunters Point, and San Francisco Segments.

A 0.3-mile-long extension to the Tracy Segment.

A new compressor station at Lindsay.

Nineteen additional meter stations at various points along the additional pipeline segments.

Pipeline Rights-of-Way and Additional Construction Work Areas

Mojave intends to bury its pipeline within or adjacent to existing railroad and surface road rights-of-way for almost 80 percent of the proposed pipeline route. Much of the North Mainline would be within the Southern Pacific (SP) railroad right-of-way where it parallels California State Route 99 through the San Joaquin Valley, or pending the outcome of negotiations with the railroad, just outside the existing 100-foot-wide right-of-way. Because of this uncertainty, we evaluated environmental resources both within and adjacent to the SP right-of-way.

The width of the construction right-of-way would generally be based on the diameter of the pipeline. Pipe 4 to 8 inches in diameter would require a construction right-of-way up to 30 feet wide, 10- to 16-inch pipe would require up to 65 feet wide, and 20- to 30-inch pipe would require up to 75 feet wide. Because relatively level work spaces are needed for trench excavation equipment, wider construction rights-of-way may be needed on steep grades and in areas of excessive side slope.

Where Mojave loops its existing system, the loop pipeline would be offset 20 feet from the existing pipeline. The loops along the Mojave Mainline and East Lateral would require extending the 95-foot-wide right-of-way by 20 feet. The loops along the Commonline would be placed within the existing 100-foot-wide right-of-way. In general, the existing Mojave Pipeline right-of-way would be used for up to two-thirds of the total required construction right-of-way for the looped sections.

Additional work areas outside the typical construction right-of-way would be required where the route crosses paved roads, railroads, rivers, streams, canals, and wetlands. At all road, railroad, and canal crossings, an additional 0.1 acre of temporary work space would be required. At stream and river crossings wider than 100 feet, an additional 1.15 acres would be required, and at stream crossings less than 100 feet wide, an additional 0.18 acre would be required. The total permanent acreage for the pipeline right-of-way would be about 790 acres with an additional 5,040 acres of temporarily disturbed construction right-of-way.

Above-ground Facilities

The land requirements for the proposed aboveground facilities would generally be limited to the acreage needed for new compressor and meter stations. Although equipment would be added at the Topock Compressor Station, no additional land would be required. The Amboy and Famoso Compressor Stations would require 20 acres each, and the Daggett and Lindsay Compressor Stations would require 17 and 17.23 acres, respectively. The meter stations would be built on fenced sites 100 feet square. The maximum 58 meter stations would require a total of 13.54 acres. Mojave would also install numerous block valves along the pipeline entirely within the proposed construction right-of-way.

Construction Schedule

Project construction would take nine months. Separate work crews would construct the three new compressor stations and modify the existing Topock Compressor Station. Construction is scheduled to commence mid 1995, pending FERC certification. Construction would start at the southern end of each section and move northward.

Future Plans and Abandonment

Mojave has no specific plans for the further expansion of its facilities beyond the proposed project whose economic life is estimated at 30 to 50 years. Mojave has indicated that it would seek authority to abandon the pipeline in place. Mojave has stated that, upon ceasing operation, the underground pipeline would be purged of natural gas in accordance with Title 49, CFR, Section 192.727, by pushing a swab pig through the pipeline with nitrogen and sealing the ends. Being inert, the nitrogen gas would serve as a rust inhibitor and have no impact on groundwater or surface water. The compressor and meter stations would be dismantled, and equipment would be salvaged or reused to the extent possible. The compressor station foundations would be broken up, the refuse would be hauled to approved disposal sites, and the sites would be revegetated and restored in accordance with applicable agency regulations in effect at that time.

Proposed Mitigation

In addition to the proposed general mitigation measures discussed in the draft EIR/EIS, Mojave will implement the following measures to mitigate impacts on special status terrestrial species:

> Perform preconstruction surveys to identify occupied habitats in order to make minor realignments that would avoid impacts to species and to provide a baseline against which to measure actual project impact. The surveys would be conducted within the timeframes specified by the Service and would clearly mark burrows, nests, plant locations, and sensitive species habitat within and adjacent to the construction zone.
>
> Conduct a worker education program to instruct all construction and operation personnel on basic sensitive species identification and mitigation measures. Specific information about sensitive species, their habitats, and sensitivities will be included in the program for all personnel who could encounter the species. Additionally, workers would be instructed on the penalties for noncompliance with the mitigation plan or violation of the Endangered Species Act of 1973, as amended, (Act).
>
> Inspect each blasting zone immediately before blasting to identify active burrows and remove any individuals of sensitive animal species that are seen on the ground surface. After blasting, active burrow entrances would be checked to ensure that they are open, and, if necessary, active burrows that were plugged or collapsed by the blast would be excavated and any trapped animals would be released.
>
> Report any accidental death or injury of a listed animal species to the Service immediately and follow the Service's handling instructions.
>
> Restore the right-of-way through natural habitats and monitor natural and artificial revegetation until the success criteria are met.
>
> Compensate for permanent or long-term and temporary loss of habitat with funds or acreage on the basis of the species and acreages affected.

Not use herbicides or rodenticides in construction areas except at permanent aboveground facilities.

Mojave proposes to implement a construction-phase monitoring program in order to ensure that construction contractors comply with the mitigation measures set forth in the draft EIR/EIS. Qualified and trained environmental monitors would be responsible for implementing specific mitigation measures for special status species as well as the general mitigation measures set forth in the draft EIR/EIS. The qualifications and responsibilities of the environmental monitors and details of the monitoring program would be outlined in Mojave's mitigation plan. The monitor will be:

Empowered to order correction of acts that violate the environmental conditions of the mitigation plan or any other authorizing document;

Full-time positions separate from all other activity inspectors;

Responsible for documenting compliance with the environmental conditions in the draft EIR/EIS as well as any environmental conditions/permit requirements imposed by other Federal, state, or local agencies; and

Responsible for maintaining status reports.

Habitat Compensation

Where mitigation would not reduce the impact to less than significant, Mojave would be required to provide compensation funds or acreage. For example, for sensitive animal species such as the desert tortoise, construction-related mortality and long-term loss of habitat would remain significant and require compensation. The exact amount of compensation, derived by various mitigation ratios depending upon the types of habitat impacted, are outlined below in the Terms and Conditions of the Incidental Take Statement.

Species-Specific Mitigation:

San Joaquin kit fox: Direct mortality as a result of entrapment of kit foxes in dens or excavations would be minimized by avoiding known dens wherever possible. Where avoidance is not possible, hand excavation of known and potential dens within the construction right-of-way would be conducted following consultation with the Service and DFG using techniques approved by the agency as stated in "Standardized Recommendations for Protection of the San Joaquin Kit Fox" (FWS 1989). In addition to the general mitigation measures, the following specific mitigation measures are proposed to minimize impact on San Joaquin kit fox:

Preconstruction surveys in areas identified as supporting good-, moderate-or poor-quality San Joaquin kit fox habitat would be conducted within 30 days before starting construction activities to determine current kit fox occurrences along the proposed construction right-of-way. The results of these surveys would be presented to the Service within two weeks of their completion.

Following the preconstruction surveys but prior to construction, circular exclusion zones would be established around all known and potential dens, and construction activities, especially vehicle activity and equipment storage, would be prohibited or minimized within exclusion zones.

Any known or potential kit fox dens within the construction right-of-way that could not be avoided would be carefully destroyed following FWS protocol using hand tools until it is certain that the den is inactive.

Temporary loss of kit fox habitat during construction would be mitigated by revegetating the construction right-of-way and providing compensatory acreage. The habitat compensation ratio that will be applied for chenopod scrub habitat is 1.08:1, and the ratio for nonnative grassland habitat in the Central Valley south of Highway 152 is 0.3:1. Based on these ratios, the temporary loss of 39.3 acres of good-quality chenopod scrub habitat would be compensated by acquiring 43.12 acres of existing high-quality habitat if either Alternative Customer Group 1 or 2 were served. Compensation for habitat loss in nonnative grassland would require the permanent protection of 36.95 or 46.35 acres if Alternative Customer Group 1 or 2 were served, respectively. No habitat compensation acreage would be provided for the temporary loss of marginal-quality kit fox habitat in agricultural, urban, and disturbed lands unless evidence of an active den is found within or adjacent to the construction right-of-way. If an active den is discovered during the preconstruction surveys, the resource agencies would be notified, and appropriate compensation acreage would be determined.

Construction of the core project and additional facilities to serve either Alternative Customer Group 1 or 2 would result in the temporary loss of 398.45 acres of nonnative grassland and oak woodland habitat in the Coast Ranges. FERC recommends that Mojave provide compensation for the San Joaquin kit fox habitat at a ratio of 1.1:1 to offset the temporary disturbance caused by project-related activities in the Coast Ranges.

Tipton kangaroo rat: Direct mortality of Tipton kangaroo rat during construction would be minimized by restricting the width of the construction right-of-way and establishing exclusion zones around known burrows. In addition to the general mitigation measures listed, the following mitigation measures are proposed to minimize potential impact on Tipton kangaroo rat:

> Preconstruction surveys would be conducted within 30 days before starting construction activities in order to update the status of Tipton kangaroo rat within the construction right-of-way. These surveys would be conducted between Pixley and Tulare on the North Mainline simultaneously with the preconstruction surveys for San Joaquin kit fox.
>
> Following the preconstruction surveys but before construction, circular exclusion zones would be established around all known Tipton kangaroo rat burrows and prohibited or minimized construction activities, especially vehicle activity and equipment storage, would be within the exclusion zones.
>
> Any known Tipton kangaroo rat burrows within the construction right-of-way that could not be avoided would be carefully destroyed following Service guidelines using hand tools until certain that the burrow is inactive.
>
> All pipes, culverts, and similar structures would be inspected before burying, capping, or otherwise installing in the trench.

Mojave will reclaim disturbed areas per revegetation requirements. Loss of Tipton kangaroo rat habitat will be compensated for as part of San Joaquin kit fox compensation.

Blunt-nosed leopard lizard: Mojave would minimize direct mortality of blunt-nosed leopard lizard as a result of construction-related activities by avoiding known burrows by minor route realignment or restricting the width of the construction right-of-way where possible. Where avoidance is not possible, Mojave would mitigate construction-related impact by applying the following measures in addition to the general mitigation measures:

> Preconstruction surveys of blunt-nosed leopard lizard habitat would be conducted within 30 days before startup of construction activities. Areas of burrowing activity would be marked on the alignment sheets.

Following the preconstruction surveys but before construction, circular exclusion zones would be established around all known leopard lizard burrows, and construction disturbance, especially vehicle activity and equipment storage, would be prohibited or minimized within the exclusion zones.

Any known leopard lizard burrows within the construction right-of-way that could not be avoided would be carefully excavated following Service protocol using hand tools until certain that the dens are inactive or the lizards escape.

Open trenches in blunt-nosed leopard lizard habitat would be inspected at least twice a day and immediately before backfilling. Lizards in trenches would be removed by the environmental monitors.

The right-of-way would be inspected for active blunt-nosed leopard lizard immediately before ground-disturbing activities.

If blunt-nosed leopard lizards are observed in the right-of-way, they will be removed from the area before resuming construction-related activities.

Mojave has proposed different protocols for construction monitoring for active and inactive periods. If construction occurs during active periods, i.e., when temperatures are between 75 to 95°F, the open trench would be inspected more frequently by the monitors. If construction occurs during inactive periods, i.e., when temperatures are below 75°F or above 95°F, increased emphasis would be placed on locating and avoiding or excavating known burrows.

Desert tortoise: Mojave would implement onsite mitigation measures to minimize the level of take that might result from construction activities within the construction right-of-way along the loops in the Mojave Desert. In addition to the general mitigation measures, Mojave's onsite mitigation would include the following measures:

During the preconstruction surveys in all areas of known and potential desert tortoise habitat within and adjacent to the construction zone, tortoise burrows would be identified and clearly marked to prevent crushing and take.

Each tortoise burrow in or near the construction right-of-way that could be avoided by construction activities would be protected by flagging stretched between stakes, at least 20 feet from the burrow on sides bordered by construction activities. No construction activities would occur within these exclusion zones, which would will be clearly labeled with signs identifying the purpose and restrictions on access.

Tortoise burrows that could not be avoided would be excavated by hand down to the tortoises, which would be removed. Burrows would be excavated by or under the supervision of qualified tortoise biologists.

Tortoises removed from burrows or found aboveground would be relocated at least 150 feet from the construction right-of-way but within 300 feet of the point of capture. Tortoises would only be handled by qualified biologists according to protocols agreed upon by the Service. Biological monitors along the loops would be specially trained in surveying and handling procedures for desert tortoise. These procedures would vary according to the season in which construction occurs. Artificial hibernacula could be required in the winter, and rehydration could be required in the summer.

Compensation for loss of habitat would follow BLM guidelines for projects affecting less than 1,000 acres. To compensate for long-term loss of habitat in areas outside the previously disturbed right-of-way, Mojave has proposed a compensation of 4.0:1. This ratio is based on factors including the category of BLM habitat, impact on adjacent lands, growth inducements as a result of the development, existing disturbance, and duration of effect. Mojave has not proposed any offsite compensation for loss of desert tortoise habitat in areas previously disturbed by the construction right-of-way for the original project. Because redisturbance will delay substantial recovery of these areas by approximately four years and the time needed for substantial recovery is estimated to be 25 years, FERC recommends, and the Service concurs, that Mojave provide offsite compensation for the previously disturbed rights-of-way for Loops 1 and 2. For previously disturbed lands, the compensation ratio should be decreased by a factor of 4/25s, or 0.16. For Loops 1 and 2, this adjusted compensation ratio would be applied to 56.67 acres of BLM Category 1 habitat and 142.20 acres of Category 3 habitat.

Giant garter snake: Measures would be taken to minimize potential impact on giant garter snake where its presence is likely on the basis of the presence of suitable habitat within its known range. Areas with a high likelihood of supporting giant garter snake and the condition of potential habitat along intermittent streams and canals would be determined through consultation with the resource agencies just prior to construction so that appropriate mitigation measures could be taken. In addition to the general mitigation measures, and the measures taken to reduce construction-related impact on wetland habitats, Mojave proposes the following mitigation measures:

> When possible, construction within occupied giant garter snake habitat would be avoided during the dormant season from October through March. Construction in April through September would be coordinated with the resource agencies.
>
> Stream and canal banks would be reconstructed in a manner that provides hibernacula for giant garter snake if approved by the party responsible for levy or bank management. Chunks of concrete rip-rap or other suitable material would be semiburied above the 100-year flood level.
>
> The construction right-of-way width would be restricted as much as possible within the riparian zone and wetland habitat.
>
> Excavation spoils would be placed in a designated area that is unlikely to be used by giant garter snake and would be replaced immediately or removed after construction is completed.
>
> If possible, the construction right-of-way would be cleared by mowing to a height of not less than 6 inches rather than by blading.

San Francisco garter snake: Mojave will directionally bore to avoid San Francisco garter snake habitat and would avoid all direct impacts to wetland habitat. Since the crossing will be drilled rather than trenched, no impact would occur along the alternative alignment. Construction activities associated with the drill pit would encompass an area measuring 75 feet by 150 feet. Mojave will confine all drilling activities to the Southern Pacific Railroad right-of-way. This area consists primarily of disturbed grasslands and railroad bed.

Listed crustaceans: Mojave has stated that it will be possible to avoid impact on natural vernal pools by minor realignment or narrowing the construction right-of-way; however, Mojave's detailed engineering has not been completed at this time so total avoidance is not certain. Because vernal pool creation is an experimental procedure and reestablishment success is uncertain, avoidance is by far the preferred mitigation measure. FERC and the Service recommend in the draft EIR/EIS that, where Mojave is unable to avoid vernal pools by realigning or narrowing the right-of-way, Mojave should attempt to install its pipeline across these areas using the horizontal boring or directional drilling method.

Where avoidance of vernal pools is not feasible, Mojave proposes the following mitigation measures in addition to the general mitigation measures:

> Exclusion zones would be established by flagging the perimeter of all pools in or adjacent to the construction right-of-way. All construction activities would be prohibited or minimized within the exclusion zones.

These portions of vernal pools disturbed by construction as well as any surrounding areas that could influence the hydrology of the pools would be restored and recontoured.

The topsoil from the floor of the vernal pools would be segregated and stored for subsequent replacement following trench closure. The trench fill would be compacted to restore impermeable conditions and the topsoil replaced to ensure that some if not all of the eggs in the topsoil would be returned to the pools for populating the vernal pools the next rainy season.

To further minimize impact on this sensitive habitat if avoidance of vernal pools is not feasible, FERC recommends that Mojave file with the FERC and SLC a site-specific vernal pool restoration plan developed in consultation with the Service and other resource agencies that includes:

Identification of the acreage and habitat value of the vernal pools to be removed.

Details of the procedure Mojave would use to restore the hardpan layer.

A postconstruction monitoring program with success criteria based on monitoring within adjacent undamaged vernal pools.

A protocol for identifying offsite compensatory acreage of in-kind habitat at a ratio of 4:1.

Valley elderberry longhorn beetle: Impact on blue elderberry plants at Mill, Laguna, and Mosher Creeks would be avoided by minor realignments during the final survey of the construction right-of-way. A biologist would assist the surveyors in selecting an alignment that would minimize impact on valley elderberry longhorn beetle habitat. An attempt would be made to locate the edge of the right-of-way at least 20 feet from the dripline of each elderberry plant. The width of the construction right-of-way could also be restricted in the vicinity of the elderberry plants to avoid impact on occupied habitat. Exclusionary fencing and warning signs would be placed around the stem clusters to avoid inadvertent damage to the plants.

FERC does not expect project construction to result in the loss of valley elderberry longhorn beetle habitat. If the final survey of the construction right-of-way were to indicate that impact on suitable habitat would occur, Mojave would prepare and submit to the FERC a detailed assessment of the presence of valley elderberry longhorn beetle and the quality of the habitat. The assessment would include the precise location, height, and diameter of all elderberry shrubs, their general condition, and the presence or absence of adult exit holes. Mojave would then choose an alternative construction method that would avoid impact on the habitat or prepare a mitigation plan to compensate for the loss of habitat in consultation with the Service. The plan would follow the "General Compensation Guidelines for the Valley Elderberry Longhorn Beetle" (FWS, 1994).

Hoover's wooly-star: Direct mortality as a result of construction activities would be avoided or reduced by minor route realignments or narrowing the construction right-of-way. The outside perimeters of the construction corridor would be flagged for biologists and construction personnel and no activities would be conducted outside the flagged area. Realignment of the construction right-of-way would avoid direct impact on this species. If it is not possible to avoid the entire population, Mojave has proposed the following mitigation measures, in addition to the general measures, to minimize the impact on Hoover's wooly-star:

Establishment of exclusion zones with high-visibility flagging around all plants that would be avoided within or adjacent to the construction right-of-way. The zone would extend at least 10 feet from the edge of the population or the dripline of individual plants.

Collection of seeds, cuttings, or entire plants from the affected population for subsequent replanting in the right-of-way. Should this prove infeasible, seed from a nearby population would be obtained and planted in an attempt to maintain the regional genetic pool. Known plant populations would be monitored throughout the growing season to identify the optimal time to collect seed or cuttings.

Grading to return the planting site to its original contours.

Segregation and stockpiling of topsoil apart from subsoils for subsequent replacement.

Development of success criteria (survivorship requirements) to measure the effectiveness of mitigation measures in protecting and ensuring the continued viability of the population.

Development and implementation of multi-year monitoring to verify successful impact mitigation.

Large-flowered fiddleneck: Pre-construction surveys of previously inaccessible nonnative grassland habitat would be performed during the appropriate flowering period to verify the presence of this sensitive plant species. If a population is discovered, Mojave would make all reasonable attempts to avoid the sensitive plants. If avoidance is not possible, the FERC staff will reinitiate formal consultation with the Service for this federally listed species. Mojave will prepare a mitigation plan in consultation with the FWS to ensure that the action would not jeopardize the continued existence of the large-flowered fiddleneck. (Amendment to Section 3.3.4 in the Biological Assessment, FERC letter dated May 8, 1995)

California red-legged frog: Mojave would minimize direct mortality as a result of construction activities by minor route realignments in areas where potential red-legged frog habitat has been identified. The construction right-of-way would be clearly marked, and exclusion fencing would be used when wetland habitat is adjacent to the right-of-way. Wherever possible, the construction right-of-way would be outside wetland habitat and the adjacent riparian and upland zone that supports California red-legged frog. In addition to the general mitigation measures, Mojave would implement the following measures to further reduce mortality and ensure the frog's breeding success:

Preconstruction surveys would identify occupied California red-legged frog habitat on the basis of the auditory response of frogs.

Disruption of breeding would be avoided by prohibiting construction within 1/8 mile of occupied wetland habitat during the breeding season from February through March.

The monitoring of trenches would be increased during the rainy season to remove adult frogs that could become trapped as they move from wetland habitats to adjacent upland areas.

Construction would be prohibited in occupied wetland habitat from January 15 though September 15 if avoidance of the habitat through realignment is impossible.

If the temporary loss of occupied wetland habitat were unavoidable, Mojave would prepare a mitigation plan for habitat compensation and incorporate the Service mitigation guidelines, which include a sliding scale of habitat compensation ratios based on the number of years the compensation habitat is in place prior to project construction (check with Alison - expand).

Relationship to the EIR/EIS

In a separate application, Kern River Gas Transmission Company requested authorization to increase its capacity by 452 million cubic feet per day. Kern River's expansion would have a minor effect on Mojave's proposed expansion, requiring the construction of additional loop pipeline along the Commonline and East Side Lateral and a reduction in the amount of compression Mojave would install at Daggett. In November 1994, the FERC determined that Kern River's proposed expansion is not ready to go forward or be reviewed at this time and FERC dismissed, without prejudice, the portion of Mojave's facilities that were added to the project solely to accommodate the possibility of a concurrent Kern River expansion.

Because of the timing, the draft EIR/EIS addressed the additional facilities which Mojave would have built to accommodate Kern River; however, since Kern River will not be certificated, this Opinion eliminates the 43.9 miles of looping that was contingent on the Kern River expansion, including Loop 3 (22.9 miles) and the northern portion of Loop 4 (21.0 miles).

In Section 6 of the EIR/EIS, the FERC and State Lands Commission (SLC) staffs recommend adoption of the Tracy to Antioch Southern Pacific Railroad Alternative Route and six minor route variations to significantly reduce the effects of the project on the environment.

Because of the elimination of Loops 3 and most of Loop 4, and the changes in the proposed project due to agency recommended route alternatives and minor route variations, there will be significant differences between the impacts discussed in the EIR/EIS and this Biological Opinion. This Opinion is based on the adoption of these changes rather than the project as proposed in the EIR/EIS. If Mojave does not adopt the recommended Tracy to Antioch alternative route, or if any other changes are made to the project which alter impacts to federally-listed species, formal consultation will need to be reinitiated to amend this Opinion.

Environmental Baseline

San Joaquin Kit Fox (*Vulpes macrotis mutica*)

The San Joaquin kit fox is a federally listed endangered species. It inhabits annual grassland, salt bush scrub, and alkali sink communities containing annual grasses in the western San Joaquin Valley and in Tulare and Kern Counties on the eastern side of the valley. Kit foxes typically construct dens on flat or sloping terrain, on moderately sloping hillsides, and along ridges, wash banks, and road berms. They are known to forage in fallow agricultural fields. The historic distribution of this species was from Contra Costa and Stanislaus Counties south to Kern County. Biological information on the San Joaquin kit fox is available in the Recovery Plan for this species (O'Farrell 1983).

The San Joaquin kit fox is a wide ranging species with established home ranges generally between 1-3 square miles (Morrell 1972, White and Ralls 1993), but can be as large as 12 square miles (Orloff 1990). Kit foxes in the northern range can be found in higher elevations than those in the southern range. Dens have been found at elevations as high as 1,400 to 1,460 feet on slopes generally less than 30 percent (Chadwick and Odenweller 1988).

Preconstruction surveys for the original Mojave pipeline did not identify any kit fox dens in the portion of that project overlapped by the proposed action (MPs 28.0 to 38.0 of the existing Mojave pipeline correspond to MPs 0.0 to 10.0 of the proposed North Mainline). Earlier studies reported kit fox tracks near MP 8.5 and a known den at MP 10.0 of the proposed North Mainline (CWESA, 1989) .

A den survey for the San Joaquin kit fox within its occupied range was conducted by Mojave's consultant, Woodward Clyde Consultants, in spring and summer of 1993 and 1994. General habitat characteristics (i.e., natural versus altered) and qualitative assessments of the habitat's ability to support kit fox and other target species were recorded. Den characteristics, scat size, track measurements, pellets, skeletal remains, and other signs were recorded. When the general-method surveys revealed the potential presence of kit foxes, followup surveys were performed and based on survey protocols developed by the Department of Fish and Game (DFG) for the San Joaquin kit fox.

On the basis of the field surveys, potential kit fox habitat occurs along the North Mainline south of MP 89/97, between MP 0 and MP 51 of the Coalinga Segment, between MP 0 and MP 7 of the Lathrop Segment, and between MP 0 and MP 17 of the Lindsay Segment. Confirmed sightings occurred between MP 8 and MP 10 of the North Mainline and between MP 48 and MP 49 of the Coalinga Segment. Wildlife agencies have indicated that the kit fox occurs in foothill grasslands and adjacent agricultural lands in Alameda and Contra Costa Counties. Potential kit fox habitat is found between MP 233/241 and MP 275/284 of the North Mainline and from MP 7 to MP 28 of the Palo Alto Segment. Because no field surveys were conducted for kit fox in the Coast Ranges, potential habitat is assumed to be occupied.

Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)

The Tipton kangaroo rat is a federally listed endangered species that inhabits saltbush scrub and alkali sink scrub communities in the Tulare Lake Basin of the southern San Joaquin Valley in Kern, Tulare, and Kings Counties. It can also inhabit fallow or abandoned agricultural fields, grasslands, road berms, and railroad beds. Extant habitats typically are comprised of widely scattered small parcels separated by agricultural fields. A detailed listing of known localities is available from Williams (1985).

Several potential kangaroo rat burrows were found during general habitat characterization surveys in the southern San Joaquin Valley. Verification trapping of the potential burrows between MP 41.2 and MP 57.2 of the Coalinga Segment was performed between July 5 and 8, 1993. On the basis of the field surveys, a small length (less than 0.1 mile) of disturbed habitat occupied by Tipton kangaroo rat is present between MP 47 and MP 48 of the North Mainline.

Blunt-Nosed Leopard Lizard (*Gambelia silus*)

The blunt-nosed leopard lizard is a federally listed endangered species that inhabits sparsely vegetated alkali and desert scrub communities with low topographic relief. It seeks cover in mammal burrows or under shrubs, fence posts, and other structures. Its optimum habitat appears to be grasslands with alkali soils and open scalds with some relief. Steep or rocky slopes, cultivated fields, seasonally flooded areas, and dense shrub are not suitable habitat. Additional biological information can be found in the recovery plan prepared for this species (USFWS 1985).

No sign of blunt-nosed leopard lizard activity was observed during habitat characterization surveys of the Southern San Joaquin Valley in April 1993. Low temperatures recorded near ground level may have contributed to the inactivity. Focused surveys for the lizard were performed between MP 48.4 and MP 51.0 on the Coalinga Segment from June 21 to 24, 1993. On the basis of the field surveys, blunt-nosed leopard lizard habitat is present between MP 8 and MP 11 of the North Mainline and between MP 48 and MP 51 of the Coalinga Segment.

Desert Tortoise (*Gopherus agassizii*)

Desert tortoises are most active in California during the spring and early summer when annual plants are most common. Additional activity occurs during warmer fall months and occasionally after summer rain storms. Desert tortoises spend the remainder of the year in burrows, escaping the extreme conditions of the desert. Further information on the range, biology, and ecology of the desert tortoise can be found in Burge (1978), Burge and Bradley (1976), Hovik and Hardenbrook (1989), Luckenbach (1982), Weinstein et al. (1987), and U.S. Fish and Wildlife Service (1994).

On August 4, 1989, the Service published an emergency rule listing the Mojave population of the desert tortoise as endangered. In its final rule, dated April 2, 1990, the Service determined the Mojave population of the desert tortoise to be threatened. The Service designated critical habitat for the desert tortoise in portions of California, Nevada, Arizona, and Utah in a final rule, published February 8, 1994. A final recovery plan for the desert tortoise was published by the Service in June, 1994 (FWS 1994).

The recovery plan is the basis and key strategy for recovery and delisting of the desert tortoise (Service 1994). The plan divides the range of the desert tortoise into six distinct population segments or recovery units and recommends establishment of 14 Desert Wildlife Management Areas throughout the Recovery Units. Within each Desert Wildlife Management Area, the recovery plan recommends implementation of reserve level protection of desert tortoise populations and habitat, while maintaining and protecting other sensitive species and ecosystem functions. As part of the actions needed to accomplish recovery, land management within all Desert Wildlife Management Areas should restrict human activities that negatively affect desert tortoises (Service 1994).

The Mojave population of the desert tortoise is primarily found in the Mojave Desert east of the Tehachapi Mountains. Three separate surveys for this species were conducted along the route of the existing Mojave pipeline system prior to its construction in 1992, and that information was used to characterize the biological resources along portions of the existing system that would be looped as part of the proposed action (CWESA 1989; CWESA 1990; Biosystems 1992). Loop 1 from MP 0 to MP 10 crosses an area designated as critical desert tortoise habitat. The remainder of Loop 1 and all of Loop 2 cross areas designated as Bureau of Land Management (BLM) Category 3 habitat. A total of 78 tortoises were observed in the area of Loops 1 and 2.

Desert Tortoise Critical Habitat

As previously proposed, loop #3, east of the Town of Dagget falls within the Fremont-Kramer critical habitat unit (CHU), one of four CHUs designated in the Western Mojave Recovery Unit. CHUs and Recovery units as defined in the final rule designating critical habitat for the desert tortoise were patterned after the Desert Wildlife Management Area and Recovery Unit concepts in the recovery plan. The Western Mojave Recovery Unit consists of approximately 4,753,000 acres, located entirely in California. Vegetation within this Recovery Unit is characterized by creosote bush scrub, big galleta-scrub steppe, desert needlegrass scrub-steppe, and blackbrush scrub (in higher elevations). Topography is varied, with flats, valleys, alluvial fans, washes, and rocky slopes. The Fremont-Kramer critical habitat unit (CHU), covers approximately 518,000 acres in portions of Kern, Los Angeles, and San Bernardino counties, California.

New surveys were conducted in June 1993 at the two new compressor station sites at Amboy and Daggett by walking 30-foot-wide parallel transects over the entire sites. Single 30-foot-wide, zone-of-influence transects were walked 100 and 300 feet from the boundaries of the sites. General habitat characteristics (i.e., natural versus altered) and qualitative assessments of ability to support desert tortoise and other target species were recorded. Any observed signs of desert tortoise such as burrow characteristics, scat size, track measurements, pellets, or skeletal remains were noted.

Giant Garter Snake *(Thamnophis couchi gigas)*

The giant garter snake is a Federal threatened species. It inhabits marshes and shallow sloped river channels with emergent vegetation and associated grassy uplands in the San Joaquin Valley. Giant garter snakes are aquatic and primarily active during the day although they may forage during early evening hours on warm days. Their live young are born in late summer. For more information on the biology of the Giant Garter snake, please refer to the final rule: 58 FR 54053.

Because the giant garter snake is secretive and difficult to survey, the California Natural Diversity Database (CNDDB) and habitat characterization were used to assess potential habitat. Within the action area, this species potentially occurs in marshy and perennial stream areas. Additionally, the CNDDB cites an occurrence of the giant garter snake on Laguna Creek near MP 6.0 of the Sacramento Mainline. Suitable habitat is found at all river crossings in the Central Valley.

San Francisco Garter Snake *(Thamnophis sirtalis tetrataenia)*

The San Francisco garter snake is a federally listed endangered species that is reduced to only 6 populations in San Mateo County and the extreme northern Santa Cruz County. Its preferred habitat is a densely vegetated pond near an open hillside where it can sun itself, feed, and find cover in rodent burrows. The snakes are extremely shy, difficult to locate and capture, and quick to flee to water or cover when disturbed (Alison Willy, pers. comm.).

Like the giant garter snake, the San Francisco garter snake is difficult to survey, so habitat characterization and the CNDDB were used to assess potential habitat. The CNDDB reports an occurrence in October 1990 of the San Francisco garter snake in the Loma Alta Canal near MP 18 of the Hunters Point Segment. Population status and habitat use is well documented on the San Francisco Airport property. This population is in serious decline and is likely to be extirpated in the near future by a combination of impacts, including construction activities.

Longhorn Fairy Shrimp (*Branchineta longiantenna*)
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)

The longhorn fairy shrimp is a federally listed endangered species. It is generally found in two different types of vernal pools: (1) clear to moderately turbid, clay- or grass-bottomed vernal pools in nonnative grasslands and (2) small, clear-water-filled depressions in sandstone formations. The vernal pool fairy shrimp is a federally listed threatened species. It occurs in the Central Valley, potentially everywhere in the action area where vernal pools, sandstone outcrop pools, or nonnatural ponding areas are present. It completes its life cycle during the winter and spring months when standing water is present. The vernal pool tadpole shrimp is a federally listed endangered species that also occurs in the Central Valley and potentially in the action area anywhere vernal pools are present. Eggs are deposited on the floor of a pool in spring and hatch shortly after the pool fills in December or January. Adults may survive until April but usually disappear before the pool is completely dry. For more information on the biology of these crustaceans please refer to the final rule: 59 FR 48136.

Initially, drive-by surveys were performed in March and April 1993 to identify the areas of potential habitat along the right-of-way. Where potential habitat was encountered, two 50-foot-wide, parallel transects, each 25 feet from the center of the right-of-way, were walked providing complete coverage of the proposed 75-foot-wide right-of-way with a small buffer on either side. Vernal pools were identified and mapped during the initial survey and then visited again in subsequent months. When accessible, vernal pools occurring within 150 feet of the centerline of the right-of-way were sampled with a dipnet to determine whether fairy or tadpole shrimp were present.

Suitable habitat for longhorn fairy shrimp has been documented in vernal pools in Contra Costa County on the North Mainline near MP 255/264. Suitable habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp occurs in isolated locations along 13 miles of the North Mainline (between MP 81/190 and MP 83/92 and between MP 134/143 and MP 145/154), along approximately 44 miles of the Sacramento Mainline (between MP 7 and MP 45 and in a single pool between MP 58 and MP 59), and between MP 1 and MP 7 of the Sacramento (A-159) Segment. Additional potential habitat is found in nonnatural ponding areas scattered throughout 35 miles of the North Mainline (between MP 128/137 and MP 163/172) and 17 miles of the Sacramento Mainline (between MP 43 and MP 57). Fairy shrimp were observed between MP 44 and MP 45 and between MP 57 and MP 58 of the Sacramento Mainline and between MP 137/146 and MP 138/147 of North Mainline. Confirmed sightings of tadpole shrimp occurred between MP 54 and MP 59 of the Sacramento Mainline and between MP 81/90 and MP 82/91 of the North Mainline.

Valley Elderberry Longhorn Beetle *(Desmocerus californicus dimorphus)*

The valley elderberry longhorn beetle is a federally listed threatened species that occurs only in areas of the Central Valley where the blue elderberry, *Sambucus caerulea*, occurs. The beetle potentially occurs in the action area within or close to stream riparian habitats from Fresno County north to Sacramento wherever blue elderberries occur (Barr 1991).

All riparian areas crossed by the right-of-way were evaluated during habitat characterization studies in late spring or early summer of 1993 or 1994. Stands of elderberry bushes within 300 feet of the alignment were recorded. Suitable habitat was observed at various locations between MP 23 and MP 50 of the Sacramento Mainline, near MP 89/97, MP 181/189, and MP 202/211 of the North Mainline, and near MP 20, MP 21, and MP 25 of the Coalinga Segment. No occupied habitat was observed during field surveys.

Hoover's wooly-star (*Eriastrum hooveri*)

The threatened Hoover's wooly-star is a small annual herb of the phlox family. Please refer to *Federal Register notice 55 FR29370* listing Hoover's wooly-star for additional biological information. The Hoover's wooly-star is associated with the grassland component of the valley saltbush scrub community, occurring from Panoche Hills, Fresno County southward to Cuyama Valley, Santa Barbara County. Hoover's wooly-star appears to prefer slightly sandy, sometimes silty soils that often exhibit cryptogamic crusts and is found on ridgetops, hillsides, benches, alluvial fans, and level areas at elevations from 280 to 2,770 feet (BLM 1993). At the time of listing, 118 populations were known. Recent field inventories conducted by federal agencies and private consultants throughout the southern San Joaquin Valley in 1992 through 1994 have documented numerous previously unknown occurrences of Hoover's wooly-star, including some occurrences on previously lightly disturbed areas (Lewis 1994). It continues to be threatened throughout parts of its range by oil and gas development, cattle and sheep grazing, ag-land conversion, urbanization, and other surface-disturbing activities. The majority of known locations are on BLM-managed lands or combinations of surface and subsurface ownership by BLM and other parties.

A population of Hoover's wooly-star was discovered during field surveys conducted in March 1993 in southern Fresno County between MP 49 and MP 50 of the Coalinga Segment.

Large-flowered fiddleneck *(Amsinckia grandiflora)*

The endangered large-flowered fiddleneck is an annual herb of the borage family. It is a component of nonnative grassland and has historically been reported from a few locations in the northern Diablo Range, a portion of the Inner Coast Range. Refer to 50 FR 19374 for further information regarding the biology of the species. Currently, two natural populations exist, both in the hills east of Livermore, San Joaquin County. Efforts conducted by researcher Dr. Bruce Pavlk beginning in 1989 to reintroduce populations within its historical range have been labor intensive and not entirely successful (Pavlik 1994).

No populations of large-flowered fiddleneck were discovered during field surveys conducted in April 1993 and 1994, but potential habitat may exist in unsurveyed areas on the North Mainline between MP 247/256 and MP 267/285 and on the Palo Alto Segment between MP 9 and MP 28.

Large-flowered fiddleneck Critical Habitat:

The pipeline segments do not pass through designated large-flowered fiddleneck critical habitat with the adoption of the Tracy to Antioch Southern Pacific Railroad route.

California Red-Legged Frog *(Rana aurora draytoni)*

The California red-legged frog is a federally proposed endangered species. The California red-legged frog has been extirpated from 75 percent of its former range and is threatened throughout its remaining range by a wide variety of human impacts including urban encroachment, construction of reservoirs and water diversions, and introduction of predators and competitors. It is found in streams and ponds with dense emergent vegetation such as tules and cattails along the shoreline. Historically, this species was found throughout the Central Valley and Sierra Nevada foothills. For descriptions of the biology, population status and trends, and past management of the California red-legged frog, consult the proposed rule (FR 59 4888) and the references cited therein.

California red-legged frog population numbers are not precisely known, although the Service estimates that populations are declining throughout the range of the sub-species. There is not a recent scientific estimate on the rate of the decline, but many of the remaining populations appear to be declining at a rapid rate. Only three populations were thought to have more than 350 adult frogs when the species was proposed in 1994. Of those three populations, one is thought to remain intact, one has been reduced to low numbers, and one has declined to such an extent that detections are unlikely.

No evidence of California red-legged frog was found during the 1993 field surveys although potential habitat was observed in the Coast Ranges at riparian crossings on the North Mainline from MP 233/239 to MP 278/287. During the 1994 field surveys, occupied habitat was observed near Kellogg Creek on the North Mainline between MP 257/266 and MP 258/267. All streams and ponds perennial or seasonal within the range of this species should be considered potential habitat.

Effects of the Proposed Action

San Joaquin kit fox Project activities could result in the temporary loss of kit fox habitat, the disturbance or mortality of individual kit foxes, the destruction of potential and active dens, and a temporary decline in prey species. Trench excavation and right-of-way clearing could potentially cause direct kit fox mortality by destroying occupied dens or could decrease reproductive success by eliminating natal dens during nonbreeding periods. Vehicular traffic could also result in direct mortality. Kit foxes could be attracted to stored pipe and construction equipment, further increasing the potential for construction-related impact. The potential for construction-related mortality would also depend on the quality of habitat adjacent to the construction right-of-way and the density of kit fox in the area.

Approximately 39.93 acres of good-quality San Joaquin kit fox habitat within chenopod scrub communities would be temporarily lost if either Alternative Customer Group 1 or 2 were served. The temporary loss of approximately 123.15 acres of good-quality habitat in nonnative grassland communities would also occur if Alternative Customer Group 1 were served whereas approximately 154.52 acres would be temporarily lost if Alternative Customer Group 2 were served.

Poor-quality kit fox habitat is defined as active agricultural, urban, and disturbed lands within the occupied range of the San Joaquin kit fox in the southern San Joaquin Valley. Approximately 1,027 acres of this type of habitat would occur within the proposed construction right-of-way if Alternative Customer Group 1 were served, whereas approximately 988 acres would occur within the proposed construction right-of-way if Alternative Customer Group 2 were served.

Although a portion of the construction right-of-way would be designated permanent right-of-way, no permanent facilities or access roads would be maintained, and the land would be restored to its original condition after construction. The only permanent loss of kit fox habitat would occur at the aboveground facilities, i.e., the Lindsay or Famoso Compressor Station and meter stations. Construction of the Lindsay or Famoso Compressor Station would result in the permanent loss of 17.28 or 20.0 acres of habitat, respectively.

Tipton kangaroo rat: Construction activities on the North Mainline could result in the temporary loss of Tipton kangaroo rat habitat if Alternative Customer Group 1 is served and in the disturbance or mortality of individual kangaroo rats. Trench excavation and right-of-way clearing could potentially cause direct mortality by destroying occupied burrows or could decrease reproductive success if conducted during the breeding period. Vehicular traffic could also result in direct mortality, and kangaroo rats could be attracted to stored pipe and construction equipment and food-related trash, further increasing the potential for construction-related impact. Project construction would not result in the permanent loss of Tipton kangaroo rat habitat because no permanent facilities are proposed to be constructed within occupied kangaroo rat habitat.

Blunt-nosed leopard lizard: Direct mortality of blunt-nosed leopard lizards could occur during pipeline construction because of entrapment in burrows during construction, entrapment and subsequent burial in the pipeline trench, or impact with construction vehicles. Construction activities could cause reproductive failure if they occur during the breeding season. Pipeline construction could result in the temporary loss of 39.93 acres of blunt-nosed leopard lizard habitat. No permanent loss of habitat would result because there would be no permanent aboveground facilities in identified leopard lizard habitat.

Desert tortoise: The desert tortoise would be susceptible to injury or mortality from crushing during the initial clearing of the construction right-of-way. Tortoises in burrows could be crushed or trapped if the burrows collapse under the weight of construction equipment. Active tortoises might not be able to escape fast-moving machinery within the construction zone or could fall into open trenches and become trapped. These tortoises could be exposed to extreme temperatures if they are removed during the heat of the day in the summer or during early morning low temperatures in the winter and spring.

Clearing and compacting the construction right-of-way would result in the long-term loss of desert tortoise habitat; however, most of the construction right-of-way for the loops would be within the previously disturbed construction right-of-way for the original Mojave pipeline. Construction of Loops 1 and 2 would disturb an additional 119.74 acres of previously undisturbed Mojave desert scrub habitat of which 20.61 acres are considered BLM Category 1 desert tortoise habitat and 99.13 acres are considered BLM Category 3 habitat. Within previously disturbed habitat, construction of Loops 1 and 2 would disturb 198.87 acres of desert scrub habitat of which 56.67 acres are considered BLM Category 1 desert tortoise habitat and 142.20 acres are BLM Category 3 habitat. Category 1 habitat is considered essential to the maintenance of large, viable populations, is occupied by primarily medium to high density populations, and has resolvable land use conflicts. Category 3 habitat is not considered essential to the maintenance of viable populations, is occupied by low to medium density populations isolated from higher density populations, and has unresolvable land use conflicts.

Desert tortoise Critical Habitat: Regulations found at 50 CFR § 402.02 define destruction or adverse modification of critical habitat as a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features (referred to as the primary constituent elements [50 CFR § 424.12]) that were the basis for determining the habitat to be critical. In the final rule designating desert tortoise critical habitat, the Service determined that desert tortoise habitat consists of the following primary constituent elements: (1) sufficient space to support viable populations within each of the six Recovery Units and provide for movements, dispersal, and gene flow; (2) sufficient quantity and quality of forage species and the proper soil conditions to provide for the growth of such species; (3) suitable substrates for burrowing, nesting, and overwintering; (4) burrows, caliche caves, and other sheltersites; (5) sufficient vegetation for shelter from temperature extremes and predators; and (6) habitat protected from disturbance and human-caused mortality (59 FR 5820).

The Service believes the impacts described above are not likely to jeopardize the continued existence of the desert tortoise or adversely modify critical habitat because:

1. The project area supports few desert tortoises and the habitat that would be lost has been degraded to varying degrees by past pipeline construction and maintenance activities.

2. The proposed action does not increase fragmentation of desert tortoise populations in the western Mojave Desert.

3. The project description includes mitigation measures which will minimize the take of individual desert tortoises and loss of their habitat.

4. The description of the proposed action indicates that Mojave Pipeline Company would compensate for the habitat that is lost through implementation of the proposed action.

Giant garter snake: Clearing and trenching activities within potential giant garter snake habitat could injure or kill adult giant garter snakes and disrupt breeding activities. The highest potential for take would occur during the winter months when adult snakes are hibernating in upland hibernacula. Potential impact would be less likely to occur from May to October when giant garter snakes are active. If suitable wetland habitat is available adjacent to the construction right-of-way, giant garter snake could be expected to move out of the area while construction activity is occurring. If the stream or canal is dry during the active period, it could be assumed that giant garter snakes are not present. Giant garter snakes would also not likely be present in fast-moving rivers that support permanent warmwater fisheries.

Temporary loss of habitat of about 100 river crossings within the range of the giant garter snake would occur during construction and until emergent vegetation is restored within the cleared right-of-way. Hibernacula consisting of burrows or excavations in upland areas adjacent to wetlands could be destroyed by trenching and clearing activities.

San Francisco garter snake: Construction of the alternative using the drill method would avoid all impacts to the San Francisco garter snake, and its associated habitat. Drilling activities will be confined to the Southern Pacific Railroad right-of-way.

Longhorn fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp: These species are found in two types of habitat within the action area: natural vernal pools and acres of human-influenced, nonnatural ponding areas that likely used to be natural vernal pool areas. Construction of the proposed project could cause the temporary loss of the water-retaining capabilities of 1.6 acres of vernal pools and 28.7 acres of nonnatural ponding areas, which could result in the direct mortality of adults and disruption of the life cycle of these species in pools within the construction right-of-way. Construction during the nonbreeding season could result in the loss of resting eggs, which could potentially reduce local populations the following year. Construction during the breeding season could disrupt breeding activities of a portion of a pool's population. Failure to recontour and seal vernal pools after construction could impact their future ability to support these species. Potential impact on subpopulations of these species that occur in natural vernal or sandstone pools is considered more significant because of the scarcity of these types of natural habitat and the difficulty of replacing them with comparable compensation habitat.

Longhorn fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp also may be found in ponding areas along county roads and railroad rights-of-way. These areas include drainage ditches, road scrapes, tire ruts, and low areas where water collects against the roadbed, or where the road or rut traverse ancient vernal pools that are now obliterated or degraded by this disturbance. The potential impact on these species in these ponding areas is considered to be less than that occurring in natural environments because these human-influenced ponding areas are already subject to significant disturbance. The North Mainline would disturb human-influenced ponding areas along the Southern Pacific right-of-way, and the Sacramento Mainline would disturb human-influenced ponding areas along the Central California Traction right-of-way and county road rights-of-way. This impact would not be avoided because the railroads and county roads often have the least potential to result in impact as compared to a route that would cross adjacent natural lands.

Indirect effects on listed crustaceans: In addition to direct impacts caused by excavation or fill of vernal pools or other seasonally ponded habitat, construction of this project may also have indirect impacts on vernal pool habitat in the vicinity of the construction activity. Excavation may breach the integrity of the relatively impervious subsurface soil layer upon which the hydrology of vernal pools depends. This may cause draining of the perched water table, compromising the hydrology of pools some distance from the excavation. In addition, the operation of earth-moving equipment may result in siltation and the introduction of chemically laden runoff (i.e., petroleum products) into vernal pools and other ponded habitat well beyond the construction corridor. Siltation in pools supporting listed crustaceans may result in decreased cyst viability, decreased hatching success, and decreased survivorship among early life history stages, thereby reducing the number of mature adults in future wet seasons. Chemical contamination of pools can kill listed crustaceans by poisoning.

Valley elderberry longhorn beetle: Clearing of the construction right-of-way could result in the removal of blue elderberry, with stems larger than 1.0 inch in diameter. Plants of this size have the potential to support the boring larval stage of valley elderberry longhorn beetle and, therefore, should be considered suitable habitat. The presence of exit holes on the elderberry stems indicates the presence of valley elderberry longhorn beetle. Mortality of individual beetle larvae would occur if the removed stems contained larvae. The loss of suitable habitat might only be temporary if the plant's root system is left intact or if the plant is transplanted or replaced following construction. Permanent habitat loss could occur if no measures were taken to reestablish the elderberry plants removed. Habitat loss could occur at stream crossings where blue elderberry is present within the construction right-of-way; however, it is likely that most if not all elderberry plants could be avoided by minor route realignments or special construction techniques such as directional drilling. Impact on suitable habitat would be avoided by directional drilling under the streams supporting elderberry plants except at Mill, Mosher, and Laguna Creeks, which would be crossed by the Sacramento Mainline. Realignment might not be feasible to avoid two small clumps of blue elderberry in the City of Lemoore.

Direct Effects on Listed Plants

The proposed project would result in the alteration of approximately 0.2 acre of occupied habitat of Hoover's wooly-star. Acreage of impacted occupied habitat of large-flowered fiddleneck has not been determined. Prior to construction in species potential habitat, Mojave will survey approximately 334 acres of large-flowered fiddleneck potential habitats.

Within the construction right-of-way plants as well as seedbank may be buried, damaged or destroyed clearing, trenching and backfilling. Plants, seedbank, and habitat may be damaged or destroyed when equipment is accessed, moved or placed along the construction and travel corridor.

Large-flowered fiddleneck Critical Habitat: Adverse modification of the critical habitats of this species is not anticipated because of the Tracy to Antioch Southern Pacific Railroad route.

Indirect Effects on Listed Plants

Ground disturbing activities in the construction zone including scraping, trenching, and back filling would disturb the soil strata and thus change soil characters. This alteration in soil characters in the construction zone may affect the surface and subsurface hydrology in the soil profile. For example, compaction of soil as a result of heavy equipment activity on the soil surface might result in ponding of water at the surface or subsurface instead of allowing water to infiltrate through the soil profile. Or conversely, incomplete compaction as soil is backfilled into the trench may increase the number and size of pore spaces (spaces that water moves through in the soil) and thus increase infiltration rate of water through the profile. Disturbance to soils in the construction zone can also locally affect hydrology in adjacent undisturbed habitat. The disturbance in construction zone could affect the direction of water movement between the undisturbed soils and the disturbed soils. Lateral movement of water along stratified soil horizons can be disrupted as these soil horizons are destroyed through disturbance. Rootzones could become waterlogged or droughty thus affecting success of plant germination and growth. If this alteration of the soil moisture regime of the habitat are beyond the species range of ecological tolerance, lowered reproductive output or death of individuals could result.

California red-legged frog: Construction activities could result in the temporary loss of between 2 and 3.4 acres of red-legged frog habitat. California red-legged frogs require aquatic vegetation on which to lay their eggs and for cover from predators. Removal of open water habitat (including stock ponds and pools in streams) is likely to cause reproductive failure for every year that cover is absent or degraded. Mortality will occur when open water in not of sufficient quality or duration to support adult or larval frogs. Open water habitat with emergent vegetation is capable of supporting a far greater number of California red-legged frogs than that without emergent vegetation.

Any tributaries crossed by the pipeline may contain potential dispersal habitat for the California red-legged frog. California red-legged frog disperse upstream and downstream of their breeding habitat to forage and seek estivation habitat. Estivation habitat is essential for the survival of California red-legged frogs within a watershed. Estivation habitat, and the ability to reach estivation habitat can be limiting factors in California red-legged frog population numbers and survival.

Estivation habitat for the California red-legged frog is potentially all aquatic and riparian areas within the range of the species and includes any debris within 300 feet of a riparian area. The types of debris that may provide suitable estivation habitat for the California red-legged frog are: Boulders or rocks greater than 2 feet in diameter and organic debris such as downed trees or logs with a diameter of 18 inches or greater; industrial debris such as pipes, crates, and "I" beams; residential debris such as scrap washing machines and driers, tires, and junk cars; and agricultural features such as drains, watering troughs, spring boxes, abandoned sheds or hay-ricks. Incised channels greater than 18 inches in depth may also provide estivation habitat. The Service believes that there will be mortality to California red-legged frogs as a result of frogs attempting to disperse into or out of estivation habitat or by removal of essential components of estivation habitat.

California red-legged frog eggs and larvae are likely to be killed from draining of habitat for the purpose construction, and adult frogs are likely to be harmed or harassed from draining habitat. Sedimentation from erosion and runoff which is likely to kill California red-legged frog eggs and larvae, from suffocation, if sediments enter water bodies as a result of the action.

Construction activities may greatly reduce the reproductive viability of California red-legged frogs. The noise and ground vibrations expected from the use of heavy equipment during construction may harass California red-legged frogs and affect reproductive activity to the extent that California red-legged frogs may move away from optimal breeding habitat and choose less suitable sites for

General Effects on Listed Species

Individuals of sensitive plant species could be lost when the right-of-way is cleared, and sensitive animal species could be affected by the temporary loss of habitat during construction. Mobile individuals would likely be displaced to other habitats but could be lost because of intraspecific competition. Immobile species and juveniles could be destroyed. Permanent habitat loss would occur at the new compressor stations. Long-term impact could occur outside the previously disturbed right-of-way in the Mojave Desert where the recovery of sensitive plant species could take 20 to 50 years. Sensitive species could also be affected where blasting is required.

Adverse effects of construction and operation of the proposed Mojave Northward Expansion Project on listed species may result from several sources. During pipeline construction, individual animals may be directly killed or injured within or adjacent to construction right-of-way and associated areas through: (1) vehicle strikes resulting from increased construction related traffic; (2) inadvertent entrapment in collapsed dens or burrows during use of construction equipment; and (3) inadvertent entrapment in open pipeline trench segments. Other forms of possible death of injury to these species may result from wildfires inadvertently ignited during welding operations and through drowning during release of hydrostatic test water.

Individual animals also may be subject to harassment resulting from generally increased levels of human activity and from ground vibration caused by trenching and use of heavy equipment and explosives. Harassment of federally listed species also may occur during implementation of certain mitigation measures, such as excavation of dens and burrows, capture and removal of entrapped animals from open pipes and pipeline trench segments, and capture and removal of individual animals from construction rights-of-way.

Listed animals may be indirectly affected by proposed project actions through permanent and temporary loss or degradation of their habitats. Such loss or degradation would result from: (1) siting of permanent above-ground facilities within listed species habitat; (2) ground compaction and crushing vegetation within the passing lane, working lane, and on the spoil side of the construction right-of-way; and (3) from actual denudation and disruption of the ground surface along the pipeline trench.

These effects, when combined with past and current developments in the Central Valley, could contribute to a continuing pattern of habitat fragmentation that, ultimately, could have significant consequences for the long-term management of federally listed species in these areas. Habitat fragmentation resulting from surface-disturbing linear facilities would be especially disadvantageous in relatively undisturbed areas. However, in these areas Mojave proposes to confine such facilities to the maximum extent possible to existing railroad, pipeline, and transmission lines rights-of-way.

Additional adverse habitat degradation may result from erosion during release of hydrostatic test water. Also, inadvertent or intentional destruction of dens and burrows of kit foxes, leopard lizards, desert tortoises and other burrow dwelling species could result in a net reduction of habitat used by these species for shelter, reproduction, and escape cover. Some animals may escape direct injury if dens and burrows are destroyed but become displaced into adjacent areas. Such individuals could be vulnerable to increased predation, exposure, or stress through disorientation and loss of shelter.

Indirect Effects of the Proposed Action

The Service is aware of potential growth induced impacts to federally listed species and their habitats which may occur within the gasline service area from increased natural gas supplies. These impacts may include increased urban (industrial, commercial, and residential) development and associated infrastructure expansions as well as new and expanded oil and gas field development. However, the purpose of the project is to provide natural gas transportation primarily to industrial and electric generation customers that are already existing or under construction. While the availability of an alternative source of natural gas may be a contributing factor in stimulating economic and population growth, any determination as to the location and magnitude of such growth is premature and speculative at this time.

Cumulative Effects

Cumulative effects include the effects of future State, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because the require separate consultation pursuant to section 7 of the Act.

The Mojave Northward Expansion Project is among numerous development projects that are know to the Service to be occurring in areas traversed and served by the proposed pipelines. For example, the southern San Joaquin Valley is experiencing intensive development pressure from a number of sources, including oil and gas production, agricultural expansion, and urban growth. These activities are part of a historic pattern of economic growth in the San Joaquin Valley that has resulted over time in massive losses of native wildlife habitats and is the reason for the endangered or threatened status of all federally listed San Joaquin Valley species. The Mojave Northward Expansion Project likely would contribute to continuing impacts to endangered species and their habitats throughout the project area.

The Service is aware of other projects currently under review by State, county, and local authorities where biological surveys have documented the occurrence of many of the listed species discussed in this opinion. These projects included urban, mineral, and energy development, and flood control and reservoir construction. In addition, certain actions on public lands, such as livestock use in unauthorized areas, off-road vehicle use not associated with organized events, and dumping are difficult to control and may contribute to continued habitat loss and degradation.

However, we do not anticipate that the project under evaluation in this biological opinion, considered together with other non-Federal actions, would appreciably reduce the likelihood of survival and recovery of the species in question for the following reasons:

(1) Implementation of mitigation measures proposed by Mojave and the Commission should reduce the potential for incidental take of federally listed species during proposed project action to minimum acceptable levels.

(2) Effects of the project on threatened and endangered species habitats will be minimized through siting pipeline alignments along existing linear rights-of-way, revegetation and restoration efforts, and provision of replacement habitats for those temporarily and permanently impacted by pipeline construction.

Conclusion

After reviewing the current status of the affected threatened or endangered species, the environmental baseline for the action area, the effects of the proposed project and the cumulative effects, it is the Service's biological and conference opinion that the pipeline project is not likely to jeopardize the continued existence of these species or destroy or adversely modify any designated critical habitat.

INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of the Act prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply. The FERC has a continuing duty to regulate the activity covered by this incidental take statement. If the FERC (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, and/or (2) fails to retain oversight to ensure compliance with these terms and condition, the protective coverage of section 7(o)(2) may lapse.

Sections 7(b)(4) and 7(o)(2) of the Act do not apply to the incidental take of listed plant species. However, protection of listed plants is provided to the extent that ESA requires a Federal permit for removal or reduction to possession of endangered plants from areas under Federal jurisdiction, or for any act that would remove, cut dig up, or damage or destroy any such species on any other area in knowing violation of any regulation of any State or in the course of any violation of a State criminal trespass law.

Amount or Extent of Take

This biological opinion anticipates the following forms of take:

1. One (1) San Joaquin kit fox in the form of direct mortality or injury through accidental death or injury during pipeline construction and maintenance activities.

2. Two (2) Tipton kangaroo rats in the form of direct mortality or injury through accidental death or injuring during pipeline construction and maintenance activities.

3. Five (5) desert tortoises in the form of direct mortality or injury through accidental death or injury during pipeline construction activities.

4. All desert tortoise eggs within or at the mouth of desert tortoise burrows excavated during construction or maintenance activities.

5. Two (2) desert tortoises per year in the form of direct mortality or injury through accidental death or injury during pipeline maintenance activities.

6. All desert tortoises within the pipeline ROW in the form of harassment through the excavation of active burrows or the moving of desert tortoises out of harms way during construction activities.

7. Ten (10) desert tortoises per year in the form of harassment through the excavation of active burrows or the moving of desert tortoise out of harms way during maintenance activities.

8. Three (3) blunt-nosed leopard lizards in the form of direct mortality or injury through accidental death or injury during pipeline construction and maintenance activities.

9. One (1) San Francisco garter snake in the form of harassment during pipeline construction and maintenance activities.

10. The Service anticipates incidental take of the giant garter snake will be difficult to detect. The giant garter snake is secretive and notoriously sensitive to human activities. Individual snakes will be difficult to detect unless they are observed, undisturbed, at a distance. Most close-range observations represent chance encounters that are difficult to predict. It is not possible to make an accurate estimate of the number of snakes that will be temporarily disturbed during pipeline construction activities associated with the installation of the pipeline because there is no accurate census or population status information available for the action area. However, the Service anticipates one (1) giant garter snake may be directly killed or injured during construction in potential habitat.

11. The Service anticipates incidental take of vernal pool tadpole shrimp, longhorn fairy shrimp, vernal pool fairy shrimp and valley elderberry longhorn beetle will be difficult to detect for the following reasons: (1)

the uncertainty associated with the exact location of pipeline construction, and (2) the unknown density of these listed species present within the construction corridor. However, the level of take of these species can be anticipated by loss of habitat because without the essential elements such as food, cover or shelter, these animals are not likely to survive. Therefore, the Service anticipates the losses due to this project on the basis of acreage impacted.

The Service anticipates the following forms of incidental take of listed vernal pool crustaceans:

a. An unknown number of adult and juvenile longhorn fairy shrimp, vernal pool tadpole shrimp, and vernal pool fairy shrimp will be killed as a result of construction activity that will destroy or modify up to 2.0 acres of vernal pool habitat and up to 30.0 acres of non-natural ponding areas.

b. An unknown number of cysts of the longhorn fairy shrimp, vernal pool tadpole shrimp, and vernal pool fairy shrimp within 100 feet of the construction corridor will be lost due to changes in hydrology, siltation and chemical pollution of seasonally ponded habitat that will occur as a result of proposed development projects.

12. The Service expects that incidental take of the California red-legged frog will be difficult to detect or quantify for the following reasons: the aquatic nature of the organism and its moderately small body size make the finding of a dead specimen unlikely, losses may be masked by seasonal fluctuations in numbers or other causes, and the species occurs in habitat that makes it difficult to detect. Due to the difficulty in quantifying the number of California red-legged frogs that will be taken as a result of the proposed action, the Service is quantifying take incidental to the project as a result of the action. Therefore, the Service estimates that riparian habitat for the California red-legged frog that is disturbed will become unsuitable as a result of the proposed action.

The number of San Joaquin kit foxes, Tipton kangaroo rats, blunt-nosed leopard lizards, giant garter snakes, California red-legged frogs, vernal pool fairy shrimp, vernal pool tadpole shrimp, longhorn fairy shrimp and valley elderberry longhorn beetles subject to harassment from noise, vibrations, and capture, or excavation of dens and burrows cannot be estimated because the number of individuals of these species within potential project areas is unknown. Therefore, the Service anticipates harassment of all individuals of these federally listed and proposed species inhabiting areas where project activities would occur provided that such harassment: 1) is the result of bona fide project activities; 2) is inadvertent or for the express purpose of removing individual animals from construction areas to safe locations; and 3) that all terms and conditions specified below are fully implemented.

Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species discussed or in adverse modification of critical habitat.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize incidental taking of listed species.

1. The potential for harassment, harm or mortality of federally listed wildlife species resulting from project related activities shall be minimized.

2. The potential for inadvertent entrapment of federally listed wildlife species in pipeline segments, pipeline trench segments, and in dens and burrows shall be minimized.

3. The impacts of harm to threatened and endangered species through loss, degradation, and fragmentation of habitat resulting from project related activities shall be minimized.

4. The indirect impacts of this project to federally listed species and their habitats shall be avoided or minimized.

Term and Conditions

To be exempt from the prohibitions of section 9 of the Act, the FERC must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. The potential for harassment, harm or mortality of federally listed wildlife species shall be minimized by implementing the following measures:

All Species

a. The Service hereby incorporates by reference into this biological opinion as part of these reasonable and prudent measures all proposed mitigation measures described on pages 4 to 22 above and as proposed in documents submitted by Mojave Pipeline and the FERC. The terms and conditions below either specify additional measures considered necessary by the Service or modify measures proposed by the project applicants or the FERC. Unless otherwise indicated, all terms and conditions described shall be implemented by Mojave at each project site. Where terms and conditions vary from or contradict mitigation measures as proposed in any previous document, specifications in these terms and conditions shall apply.

b. Because Mojave did not have access to all areas potentially affected by the project and was not able to complete the necessary surveys, Mojave shall conduct additional or new surveys where necessary, including those segments of the proposed route that were previously inaccessible for the federally listed or proposed endangered and threatened species. Before the initiation of surveys, Mojave shall consult with the Service for appropriate survey methods and periods for each species. The survey reports should include the following information:

Names and qualifications of the persons conducting the survey;
Methods used to conduct the survey;
Dates of the survey; and
Area surveyed including the mileposts.

c. Within 30 days prior to the onset of construction activities, authorized biologists or monitors shall conduct pre-construction surveys of proposed rights-of-way and facility sites within endangered species habitat. During these surveys, the status of previous survey results shall be reviewed; habitat features such as tortoise or kit fox dens shall be flagged or reflagged, where necessary; and additional habitat features, if any, shall be identified and also flagged. All important habitat features within construction rights-of-way shall be flagged to alert biological and work crews to their presence. Habitat features outside but within 100 feet of construction right-of-way boundaries that may be inadvertently damaged or destroyed by construction activities also shall be prominently flagged to alert all work crews to their presence. Thirty-day pre-construction surveys may be conducted concurrently with other activities required under other terms and conditions if feasible.

d. Except of Federal, State, and county highways and roads, speed limits in all construction areas shall not exceed 20 mph.

e. No firearms or pets shall be allowed at work areas. Firearms carried by authorized security and law enforcement personnel are exempt from this term and condition.

f. A litter control program shall be implemented during construction along all pipeline components. This program shall include daily collection of trash, especially that which is food-related, disposal in covered receptacles, and regular removal from project sites. Within desert tortoise habitat, all such receptacles shall be raven-proof.

Desert Tortoise

e. Only biologists authorized by the Service under the auspices of this biological opinion shall handle desert tortoises. The proponent shall submit the name(s) of the proposed authorized biologists(s) to the Service's Ventura Field Office for review and approval at least 15 days prior to the onset of activities. No project activities shall begin until an authorized biologist is approved. The authorized biologist(s) shall be present on-site during all project activities that could result in the take of desert tortoises or loss of their habitat.

f. Workers shall inspect underneath any parked vehicles immediately prior to moving the vehicles. If a desert tortoise is beneath the vehicle, the authorized biologist shall be contacted to move the desert tortoise from the construction area. Alternatively, the vehicles shall not be moved until the desert tortoise has left of its own accord. The authorized biologists shall be responsible for taking the appropriate measures to ensure that any desert tortoise moved in this manner are not exposed to temperature extremes which could be harmful to the animal.

g. All monitoring of work activities where surveys have demonstrated that presence of listed species, and handling of listed species shall be accomplished by qualified biologists. The qualified biologist(s) shall have the authority to halt any non-emergency actions that might result in harm to a listed species. Work shall proceed only after hazards to the listed species are removed, the individual is no longer at risk, or the individual has been moved from harm's way by the qualified biologist. The qualified biologist shall also be responsible for assisting in compliance with these terms and conditions.

Excavation of desert tortoise burrows that could be affected by project actions may begin up to 14 days prior to the onset of surface disturbing activities. However, when desert tortoises are active above-ground, a final survey for desert tortoises shall occur no more than 24 hours before the onset of surface disturbing activities. Burrow excavation shall follow procedures established in Appendix A, "Guidelines for Handling Desert Tortoises During Construction Projects".

During excavation of desert tortoise burrows, the authorized biologist shall watch for the presence of desert tortoise eggs. Any eggs encountered shall be handled as outlined in Appendix A. The number and location of eggs and the location of shell fragments encountered during burrow excavation shall be included in the annual report of project activity noted in term and condition 3b.

h. In handling desert tortoises, the authorized biologist(s) shall follow the general handling protocol outlined in Appendix A.

i. While in desert tortoise habitat, biological monitors shall be present on site during all phases of construction to ensure that desert tortoises are not inadvertently harmed. In addition, biological monitors shall be present on site to ensure all construction vehicles and heavy equipment remain in the boundaries of the construction zone delineated by term and condition 3.c. below.

j. Alternatively to term and condition 1.i. above, a temporary desert tortoise barrier may be installed along both sides of the pipeline corridor, and access road prior to onset of any construction activities. Authorized tortoise biologists shall be present on site during installation of the tortoise barrier. The barrier shall be checked a least once a day. Any desert tortoises or eggs found along or inside the barrier shall be removed by an authorized desert tortoise biologist in accordance with Appendix A.

k. During blasting activities, any desert tortoise burrow that is outside a proposed construction area and is not excavated but which may be affected by blasting shall be flagged. Occupying desert tortoises shall be removed by an authorized biologist if they can be extracted without excavating the burrow. If desert tortoises cannot be removed from burrows, crumpled newspaper shall be inserted to arm's length inside the burrow prior to blasting. Any tortoises that are removed from burrows shall be held in clean cardboard boxes, one tortoise per box, until they can be safely returned to the sites where they were collected.

l. To discourage common ravens from nesting on installed facilities in desert tortoise habitat, anti-perching wire shall be affixed to such structures. Should nesting be observed on pipeline facilities, the proponent shall secure the appropriate permits and, if issued, shall remove the nests in a timely manner.

San Joaquin kit fox, blunt-nosed leopard lizard, and Tipton kangaroo rat

m. Fenced exclusion zones shall be established around all San Joaquin kit fox dens that are outside of but adjacent to construction rights-of-way (within 150 feet of outside boundaries). Exclusion zone fencing should consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. These exclusion zones shall be established at the following distances:

occupied kit fox den:	150 feet in radius
potential kit fox den:	100 feet in radius
occupied kit fox natal den:	200 feet in radius

Potential kit fox dens need only be marked with 3 flagged stakes placed at equidistant points about 15 feet from den entrance(s). If exclusion zoned for known kit fox dens and known or suspected kit fox natal dens cannot be observed, the Service shall be notified verbally or in writing and an explanation shall be provided as to why these exclusion zones cannot be observed. Reduced zones shall be permitted upon Service concurrence.

If avoidance of known or potential kit fox dens within the pipeline ROW is not practicable, the dens may be excavated under the following guidelines. Potential dens may be excavated without prior notification to the Service. Prior to excavation of any known kit fox dens or known or known or suspected kit fox natal den (I) the Service contact for the San Joaquin Valley shall be notified verbally or in writing, (ii) an explanation shall be provided as to why the den(s) cannot be avoided, and (iii) Service concurrence for such excavations shall be obtained. Potential kit fox dens may be excavated without prior notification; however, destruction of all kit fox dens shall be included in all reports required under these terms and conditions.

n. Immediately prior to the start of pipeline trenching and other surface-disturbing activities within leopard lizard habitat, project biological monitors shall inspect the construction ROW for leopard lizards active on the ground surface during their active season. All leopard lizards observed shall be captured and removed or chased out of the path of construction by qualified biologists. Such removal of leopard lizards shall be conducted as necessary throughout the construction period. The release shall ensure the lizard is out of harm's way, but be as close as possible to the capture location. If a leopard lizard enters a burrow within the ROW, that burrow shall be carefully excavated using hand tools and the lizard allowed to escape unharmed.

Qualified biologists shall survey for burrows potentially used by blunt-nosed leopard lizards within suitable habitat during the inactivity period (October 1 to March 14). All potential burrows shall be excavated by hand by a qualified biologists and any leopard lizards shall be released in suitable habitat near suitable burrows, and in suitable weather conditions. If suitable weather conditions are not expected, Mojave shall make arrangements for an authorized organization, institution, or individual to care for the animals until appropriated conditions occur.

o. Buffer zones of 30 feet shall be observed around the burrows of Tipton kangaroo rats and blunt-nosed leopard lizards. Should it prove impracticable to adhere to the preceding buffer zones, then a qualified biologists shall be on site during project activities.

p. Construction activities between dusk and dawn shall be minimized.

Giant Garter Snake

q. During construction at the habitat crossings a qualified monitoring biologist shall be present. If a garter snake is observed, construction will immediately be halted until it is determined that the garter snake will not be harmed.

r. If construction within giant garter snake habitat must occur during the dormant season, Mojave shall conduct an evaluation of all areas of potential habitat, following the DFG's standard protocol. Based on the habitat evaluation, Mojave shall propose habitat compensation, including avoidance by boring if appropriate, on a case-by-case basis. The habitat evaluations and proposed compensation shall be submitted to the Service for approval prior to construction.

s. If construction occurs during the nondormant season, snake fencing shall be erected to prevent snakes from entering the work site. Fencing shall be constructed of smooth material and placed an approximate 45 degree angle outward to prevent snakes from scaling the fence.

San Francisco Garter Snake

t. Mojave shall install temporary snake fencing around the bore-hole at the end of each working day as long as the hole remains open.

Mojave shall install temporary snake fencing along the San Francisco airport property where trenching will occur. Fencing shall be placed so that it extends a distance of 100 feet north and 100 feet south of the open trench.

u. The location of any San Francisco garter snake found shall be noted on a USGS 7 ½ minute quadrangle map. A FAX of the marked section of the map shall be transmitted to the Service at (916) 979-2723 within one working day of detection. OR: Any San Francisco garter snakes found in the trench shall be reported to the Service within one working day.

v. San Francisco garter snakes removed from the trench shall be released at the Contra Loma Canal.

w. Along the length of the pipeline that is installed within the city limits of the City of Millbrae, Mojave shall inspect open trenches for San Francisco garter snakes three times as day as well as immediately before backfilling.

x. Stockpile areas shall be fenced.

y. All vegetative cover adjacent to the San Francisco Airport Property that will be disturbed by construction activities shall be hand cleared prior to construction and inspected daily prior to initiation of daily construction activities.

z. If construction occurs from:

November 1 through March 15

1. Mojave shall employ a team of two biologists to remove adult bullfrogs over 15 cm snout-vent length from the San Francisco Airport "west-of-bayshore" property. Bullfrog removal shall occur over a period of three weeks, five nights per week and five hours per night, or until it has been demonstrated to the satisfaction of the Service that all bullfrogs have been removed.

2. Seine canals and wetlands at the San Francisco Airport for bullfrog larvae. Dispose of the larvae in a manner acceptable to the California Department of Fish and Game.

3. Remove bullfrog egg masses in the spring of 1996.

4. Introduce a minimum of four California red-legged frogs (two males and two females) from the Penisulan population (if impacted), to the San Francisco Airport property after completion of the adult bullfrog eradication work.

March 16 through October 31

1. Mojave shall employ a team of two biologists to remove adult bullfrogs over 15 cm snout-vent length from the San Francisco Airport "west-of-bayshore" property. Bullfrog removal shall occur over a period of six weeks, five nights per week and five hours per night, or until it has been demonstrated to the satisfaction of the Service that all bullfrogs have been removed.

2. Seine canals and wetlands at the San Francisco Airport for bullfrog larvae. Dispose of the larvae in a manner acceptable to the California Department of Fish and Game.

3. Remove bullfrog egg masses in the spring of 1996.

4. Introduce a minimum of four California red-legged frogs (two males and two females) from the Penisulan population (if impacted), to the San Francisco Airport property after completion of the adult bullfrog eradication work.

If the San Francisco Airport refuses to accept this mitigation on the San Francisco Airport "west-of-bayshore" property, then the mitigation shall be offered to the California Department of Parks and Recreation on their Pescadero Marsh and Butano Creek properties, with the exception of reintroduction of California red-legged frogs, and with the addition of acquisition of off-site compensation at a ratio of 3:1 for wetlands impacts and 10:1 for upland impacts during construction activities.

Vernal Pool Crustaceans

aa. Every vernal pool and ponded swale (vernal habitat) that is directly disturbed, damaged, or filled, wholly or in part (directly impacted), by construction will be mitigated in its entirety at a 4:1 ratio. This mitigation acreage will be apportioned to preservation and creation as follows:

1. **Preservation component.** For every acre of vernal habitat directly impacted, at least three acres of vernal pool habitat will be preserved in a Service-approved ecosystem preservation area.

2. **Creation component.** For every acre of vernal habitat directly impacted, at least one acre of vernal pool habitat will be created and monitored in a site within 40 miles of the impacted vernal habitat, as approved by the Service.

bb. Every vernal pool and ponded swale (vernal habitat) that is indirectly affected, wholly or in part, by construction will be mitigated in its entirety by preservation of vernal habitat at a 1:1 ratio in a Service-approved ecosystem preservation area. The extent of indirect effects will be determined by a qualified on-site biologist following guidelines provided by the Service.

cc. Direct impacts of construction on non-natural ponded areas will be mitigated by preservation of vernal pool habitat at a 0.5:1 ratio in a Service-approved ecosystem preservation area.

Valley Elderberry Longhorn Beetle

dd. Mojave shall implement and follow the U.S. Fish and Wildlife Service General Compensation Guidelines for the Valley Elderberry Longhorn Beetle as set forth in Appendix B.

ee. All elderberry shrubs adjacent to the project site shall be protected from damage during construction by flagging or providing a 20-foot buffer from the dripline of potentially affected elderberries.

ff. The monitoring program will follow the guidelines found in Appendix B.

2. The potential for inadvertent entrapment of federally listed wildlife species shall be minimized by implementing the following measures:

a. Mojave shall make every reasonable effort to avoid damage to or destruction of desert tortoise burrows, San Joaquin kit fox dens, and burrows likely to be use by blunt-nosed leopard lizards or Tipton kangaroo rats during pipeline construction. Such avoidance measures may include minor rerouting of pipeline alignments, localized reduction in construction corridor widths, and minimization of construction impacts to the least possible area within the corridors. During the surveying phase of construction activities, qualified biologists shall assist pipeline engineers in minimizing impacts to important habitat features especially burrows of desert tortoises.

b. Open pipeline trenches, auger holes, or other excavations that may act as pit-fall traps shall be inspected by an authorized biologist a minimum of three times per day and just prior to back-filling. Any listed species found shall be safely removed and relocated out of harm's way. For open trenches, earthen escape ramps shall be maintained at intervals of no greater than 0.25 mile. Other excavations that remain open overnight shall be covered to prevent their becoming pit-fall traps.

c. Pipe segments with diameters of four or more inches shall be capped or taped closed nightly. In habitats supporting listed animals species, prior to sealing, pipe segments shall be regularly inspected for the presence of listed species. Should a pipe segment become occupied by a listed species, a qualified biologist shall remove it from the pipe segment and release it out of harm's way.

3. The impacts of harm to threatened and endangered species through habitat loss, degradation, and fragmentation shall be minimized by implementing the following procedures:

a. Prior to initiation of construction activities, Mojave shall compensate for temporary impacts to threatened and endangered species habitat in the following manner:

Mojave shall enter into a legally-binding agreement with the Service and the California Department of Fish and Game that specifies the measures by which Mojave shall compensate for all habitat impacts resulting from the proposed pipeline construction activities within the impact areas. This agreement shall specify: (I) habitat areas for which compensation is required, or the means by which actual habitat acres of disturbance will be determined; (ii) compensation acres required, based on ratios and formulae used by the Service and Department; (iii) means by which Mojave shall satisfy this obligation, whether by direct habitat acquisition and transfer, or contributions to suitable mitigation funds; (iv) the dollar amount required to satisfy this obligation, if applicable, including habitat endowment costs, (v) the dollar amount(s) of any letter(s) of credit required by the agencies to guarantee performance by Mojave, and how such amount(s) were derived; and (vi) the specific time frame within which all obligations shall be discharged.

b. Construction sites shall be clearly delineated in the field with flagged stakes or by other suitable mean to prevent inadvertent straying of construction equipment and degradation of adjacent wildlife habitats during pipeline construction. This shall include the outside boundaries of pipeline ROW, and other construction areas such as storage, staging, and parking areas. Off-road traffic outside of designated project areas shall not be permitted.

c. All access to construction ROW shall occur via existing primary an secondary roads or via permanent or temporary roads constructed for that purpose. No access via off-road routes shall be permitted. Construction of new access roads shall be minimized, and shall not exceed that identified in environmental documentation submitted to date, unless otherwise approved in writing by the Service.

d. Joshua tree, sensitive cacti, perennial species, and other specimen vegetation that cannot be avoided shall be carefully removed from the ROW, held in secure locations, and replanted on the ROW near their original locations after completion of construction. Within desert tortoise habitat, sensitive cacti, perennial species, and other specimen vegetation shall be defined as larger and/or slow-growing species that provide shelter and/or food resources for desert tortoises. These species shall include Joshua tree (*Yucca brevifolia*), Mojave yuccas (*Yucca schidigera)*, and Spanish bayonet (*Yucca baccata*).

e. Mojave shall restore areas disturbed by project actions. Restoration shall be conducted in a manner that would assist in the re-establishment of original native plant communities within the disturbed ROWs. Restoration shall include techniques to reduce soil erosion, and include respreading of the top four inches of topsoil, planting with appropriate native shrubs, and scattering of bladed vegetation and rocks (where appropriate across the ROW. Only native species, adapted to local conditions and derived from local sources shall be used in the revegetation effort. Specific seeding rates shall be developed on area-specific basis, in consultation with reclamation specialists, the Service, FERC, and the DFG. A program for control and removal of invasive exotic species within the activity areas shall be developed by Mojave and reviewed by the Service before implementation.

4. Indirect impacts to federally listed species from this proposed project shall be avoided or minimized by implementing the following measure:

    a. No connections will be added to the pipeline and Mojave shall have no authority to authorize such connections without prior written approval from FERC, to assure compliance with this biological opinion.

Although the Act does not preclude FERC from taking an action with adverse effects on a proposed species, FERC is reminded that if the California red-legged frog is listed prior to the completion of the action, or while FERC still maintains discretionary authority relative to the action, the FERC will be required to insure against adverse effects. The FERC may be required to suspend the action at that time pending resolution of the requirement to formally consult under section 7 of the Act. Consequently, the Service advises that the FERC consider implementing the reasonable and prudent measure and terms and conditions listed below.

Reasonable and Prudent Measure for the Red-Legged Frog conference

1. The potential for harassment, harm, or mortality of the California red-legged frog shall be minimized.
2. The potential for loss of estivation habitat of the California red-legged frog shall be minimized.

Terms and conditions for the California red-legged frog

1. The potential for harassment, harm or mortality of the California red-legged frog should be minimized by implementing the following procedures:

    a. FERC shall ensure that any habitat constructed as mitigation habitat without commensurate vegetative restoration be constructed with the following ratios are for each unit of impact:

Year of impact	1	2	3	4	5	6	7	8	9	10
Mitigation ratio for each unit impacted	10.0	9.5	7.5	5.0	3.0	2.5	1.8	1.5	1.2	1.0

(For example if impacts are expected five-years from this opinion, then the amount of open-water habitat that shall be constructed is 3:1, or three acres for every one acre impacted.)

    b. FERC shall ensure that any habitat constructed as mitigation habitat with commensurate vegetative restoration be constructed with the following ratios: 10:1 for same year impacts, 3:1 for second through fifth year from impact, and 1.2:1 for impacts that will occur after five years, provided that each mitigation pond is a minimum of 0.1 acre in size, no greater than 1.0 acre in size, a minimum of 3.5 feet deep, and planted with cattails (*Typha latifolia*) at a density of at least 6 per square yard in an area of at least 10 square yards and during year-one.

    c. FERC shall ensure that any mitigation ponds will have a permanent and obligated year-round supply of water. If there is insufficient natural water available to keep the pond watered year-round, FERC shall ensure that the pond has a supplemental water supply that can be used to fill the ponds at any time.

d. FERC shall ensure that the water supply for mitigation ponds is of sufficient quality to support the presence of the species.

e. FERC shall ensure that any mitigation ponds have a permanent dewatering device installed in each pond.

f. If any mitigation ponds are found not to hold water, and sealing or resealing is needed to maintain habitat, FERC shall reinitiate consultation.

g. FERC shall require that a minimum of 50 percent of the mitigation ponds be at their water storage capacity prior to inundation or draining of any open water habitat.

h. FERC shall ensure that at least 5% of mitigation pond shoreline is maintained to be free of emergent vegetation.

I. FERC shall require that the mitigation ponds be constructed in such a manner as to allow a 1:10 grade to a depth of one foot on at least 30% of the perimeter.

j. FERC shall ensure that no more than 50% of perimeter of the mitigation ponds shall be allowed to support woody plant species.

k. FERC shall ensure the draining of mitigation ponds between September 15 and October 31, and FERC shall prevent the draining of the mitigation ponds during any other time of year.

l. FERC shall prohibit fishing and collection of aquatic organisms in the mitigation ponds and prohibit the release of aquatic organisms into those ponds.

m. FERC shall required a seasonal restriction on all impacts to open-water habitat from January 15 through September 15.

n. FERC shall ensure that there is no construction within 1/8 mile of California red-legged frog breeding habitat from February 1 through March 31.

o. FERC shall ensure that California red-legged frogs are removed from open water habitats prior to draining or fill of that habitat and are relocated in a safe manner.

p. FERC shall ensure that relocation sites for individual California red-legged be free of bullfrogs.

q. FERC shall ensure that a permanent easement is placed on the mitigation sites that ensures only compatible activities occur on the sites in perpetuity.

2. The potential for loss of estivation habitat of the California red-legged frog shall be minimized by implementing the following procedures:

   a. FERC shall ensure that all riparian areas crossed by Mojave pipeline are surveyed for estivation habitat prior to construction.

b. FERC shall ensure that impact to California red-legged frog estivation habitat is compensated for at a 3:1 ratio for the area of the footprint of pipeline for construction in habitat from July 1 through April 30.

c. FERC shall ensure that impact to California red-legged frog estivation habitat is compensated for at a 3:1 ratio for the area 30 feet around any estivation habitat within 300 feet of the pipeline for construction in habitat from May 1 through June 30.

d. If impacts are expected in estivation habitat from May 1 through November 30, FERC shall ensure that artificial estivation habitat is constructed+ or placed within 200 feet of each impacted area at a distance of no greater that 30 feet from the edge of the high water level and during the rainy season prior to the impact.

Review Requirement:

The reasonable and prudent measures, with implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the proposed pipeline project. If, during the course of the action the level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Commission must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

Reporting Requirements:

The federal agency or applicant shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements contained in this biological opinion. The FCR shall provide coordination with the FERC and the Service. The FCR shall have the authority to halt all project activities that are in violation of the stipulations. The FCR may be an agent for Mojave, the site manager, any other project employee, or a contracted biologist.

Within 90 calendar days after completion of a particular project component, Mojave shall submit to the FERC and the Service and appropriate State agencies a post project compliance report that details the following information: (I) dates that construction occurred; (ii) pertinent information concerning the applicant's success in meeting project mitigation measures; (iii) an explanation of failure to meet such measures, if any; (iv) known project effects on federally listed species, including an estimate of the number of kit fox dens and desert tortoise or small mammal burrows destroyed, if any; (v) occurrences of incidental take of federally listed species, if any; and (vi) other pertinent information.

If requested, upon completion of the proposed pipeline expansion project, Mojave personnel shall accompany the Service, FERC, and appropriate State agency personnel for on-site inspection of suitable portions of the pipeline ROW or facility sites. The purpose of such inspections would be to determine impacts to endangered species and their habitats and compliance with certain mitigation measures.

No construction on the proposed Mojave pipeline expansion projects shall commence until the Service has approved in writing a project compliance monitoring plan. Such a plan shall be provided to the Service no later than 15 calendar days prior to the start of pipeline or facility construction within endangered or threatened species habitat.

The Service is to be notified in writing within three working days of the accidental death or injury of any listed or proposed species from project-related actions, or of the finding of any dead or injured listed or proposed species whose death of injury likely is attributable to project related actions. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal, and any other pertinent information. The Service contact in Sacramento is the Assistant Field Supervisor for Endangered Species at (916) 979-2728, and for desert tortoise the contact is the Service's Ventura Field Office at (805) 644-1766. The Service contact for Law Enforcement is the Senior Resident Agent at (916) 979-2987. Should sick or injured animals be treated by a veterinarian and survive, the Service contact will provide information concerning final disposition of such animals.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term "conservation recommendations has been defined as suggestions from the Service regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02). The Service recommends the following additional actions:

San Joaquin kit fox

1. Disturbance to or destruction of San Joaquin kit fox dens should be minimized to the maximum extent practicable between January 1 and April 30 to reduce disruption of kit fox breeding activities.

blunt-nosed leopard lizard

2. Ground-disturbing activities that may result in destruction of dens and burrows likely to harbor blunt-nosed leopard lizards preferably should occur during leopard lizard activity periods, between April 15 and September 30 and when air temperatures are between 77 and 95 degrees Fahrenheit. This will maximize the leopard lizards' ability to escape from slow-moving vehicles and minimize the risk of accidental entombment in burrows. Therefore, if possible, the proposed project should be conducted between May 1 and September 30 within leopard lizard habitat.

California tiger salamander

3. Survey all potential California tiger salamander breeding habitat and avoid impacting all occupied breeding habitat.

4. Restore unoccupied potential habitat, where impacted, to original configuration and water storage capacity.

5. Avoid impacting California tiger salamanders in their estivation habitat by surveying the proposed route alignment for California ground squirrel (*Citellus beecheyi*) burrows and colonies, using transects, and by making minor route alignments to avoid the greatest number of ground squirrel burrows.

6. Hand excavate all California ground squirrel burrows that will be impacted by the project. Avoid handling California tiger salamanders with dry hands when collecting from estivation habitat. Maintain alive specimens of the California tiger salamander, when collected from estivation habitat, in captivity until the beginning of the fall movement period. Release each individual at the mouth of a ground squirrel burrow within 50 feet of the collection point for that individual.

7. Preserve killed California tiger salamander specimens on ice and submit to a qualified lab within 24 hours for full DNA analysis. Submit the results of DNA analysis to the Service within three months of collection.

8. Fund a DNA analysis study for the California tiger salamander.
9. Educate work crews on the need for their efforts in protecting the species.

Hoover's wooly-star

10. If entire populations cannot be avoided, a mitigation monitoring plan should be approved by the Service prior to habitat impact. Any mitigation plan that is developed should include not only success criteria and a multi-year monitoring program as described in Section 3.3.3 but also a contingency plan describing actions that will be taken in the event that success criteria are not achieved.
11. Propagation material used to reestablish Hoover's wooly-star should be limited to seed collection. Hoover's wooly-star is an annual and propagation through cuttings or by removing individuals for subsequent replanting would be inappropriate.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the Mojave Pipeline project outlined in the consultation request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a species or critical habitat that was not considered in this opinion; or (5) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

This also concludes the formal conference on the Mojave Pipeline project. You may ask the Service to confirm this conference opinion, as a biological opinion issued through formal consultation, should the California red-legged frog become listed. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the action as planned or in the information used during the conference, the Service will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary.

The incidental take statement provided in this conference opinion does not become effective until the California red-legged frog is listed and the conference opinion is adopted as the biological opinion issued through formal consultation. At that time, the project will be reviewed to determine whether any take of the California red-legged frog has occurred. Modification of the opinion and incidental take statement may be appropriate to reflect that take. No take of the California red-legged frog may occur between the listing of the California red-legged frog and the adoption of the conference opinion through formal consultation, or the completion of a subsequent formal consultation.

Please contact Jody Brown for listed vertebrate species, Alison Willy or Sheila Larsen for listed reptiles and proposed amphibian species, Bill Beckon for listed crustaceans, at (916) 979-2728, and Nancy Kang for listed plants at (916) 979-2120, if you have any questions concerning this consultation.

Sincerely,

Joel A. Medlin
Field Supervisor

cc: ARD-ES, Portland, OR
Dr. Jeffrey Single, CDFG, Fresno, Ca
Dr. Daniel F. Williams, SJVESRPP, Fresno
Ms. Caitlin Bean, CDFG, Yountville
Mr. Joe Vincente, CDFG, Sacramento

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Cay C. Goude

for Joel A. Medlin
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CALIFORNIA ENDANGERED SPECIES ACT

# BIOLOGICAL OPINION
for the

MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT

draft

Prepared by
California Department of Fish and Game
for the California State Lands Commission
June 19, 1995
(Tracking No. 2090-1995-031-0)

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CALIFORNIA ENDANGERED SPECIES ACT (CESA)
BIOLOGICAL OPINION FOR

CALIFORNIA STATE LANDS COMMISSION
MOJAVE PIPELINE NORTHWARD EXPANSION PROJECT

(Tracking No. 2090-1995-031-0)

SUMMARY

Pursuant to Section 2090 of the California Endangered Species Act (CESA) the California State Lands Commission (hereinafter " SLC") has requested consultation with the California Department of Fish and Game (hereinafter Department) to determine if the Mojave Pipeline Northward Expansion project (hereinafter "Project") would jeopardize the continued existence of any State-listed rare, threatened, or endangered species or result in the destruction and adverse modification of habitat essential to the continued existence of any listed species. The State-listed desert tortoise (*Gopherus agassizii*), San Joaquin kit fox (*Vulpes macrotis mutica*), blunt-nosed leopard lizard (*Gambelia silus*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), Swainson's hawk (*Buteo swainsoni*), giant garter snake (*Thamnophis couchi gigas*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), and the large-flowered fiddleneck (*Amsinckia grandiflora*) occur in the project area. It is the Department's determination that the project would not likely jeopardize the continued existence of the state listed species as described above, provided the conditions to avoid jeopardy and minimize take identified in this Biological Opinion are fully implemented and adhered to. The protection, enhancement, and long-term management of habitat for the desert tortoise and the San Joaquin kit fox at locations acceptable to the Department will offset project impacts which are otherwise unavoidable and will result in preserving core areas for each species in an attempt to achieve sustainable populations.

PROJECT DESCRIPTION

Mojave Pipeline Operating Company (Mojave) proposes to expand their existing natural gas pipeline system by constructing and operating new pipelines and accompanying facilities northward from Bakersfield to the Sacramento region and San Francisco Bay areas. An Environmental Impact Report/Environmental Impact Statement (EIR/EIS), SCH. No. 94032040, has been prepared for this project by the SLC and Federal Energy Regulatory Commission (FERC), respectively. Volume I of the EIR/EIS contains a more detailed description of the action area, construction procedures, environmental impacts, and mitigation measures, including mitigation measures for impacts to all sensitive species, both listed and non-listed. Volume II contains detailed maps of the project.

Existing Operations

Mojave is currently transporting natural gas into Southern California through its existing pipeline system, which begins near Topock, Arizona, and terminates near Bakersfield in Kern County, California. The Mojave pipeline system consists of certain facilities that are owned solely by Mojave and other facilities that are owned jointly by Mojave and the Kern River Gas Transmission

Company (Kern River). Mojave's solely owned pipeline facilities extend from Topock to a point near Daggett, California, and are referred to as the Mojave Mainline. The jointly owned facilities include the Commonline, the East Side Lateral, and the West Side Lateral. The Mojave Mainline currently has only one compressor station, located in Topock.

Description and Location of the Proposed New Facilities

Mojave's proposed expansion would extend its existing system northward from the Sycamore Meter Station on the East Side Lateral near Bakersfield to the Sacramento and San Francisco Bay areas. In addition to the proposed North and Sacramento Mainlines, Mojave would construct various lateral lines, loops, compressor stations, and add compression at the existing Topock Compressor Station.

Mojave's project would serve a Core Customer group of industrial and manufacturing companies, electric cogeneration plants, and municipalities. In addition, Mojave is negotiating with two other groups of customers, only one of which would be served in addition to the Core Customer Group. The facilities to be built would depend on the locations of these additional customers.

Core Project

To serve the Core Customer Group, Mojave would construct the following components (pipelines range from 4 to 30 inches in diameter):

- A North Mainline from near Bakersfield northwest for 16.5 miles, resuming west of Lindsay and continuing north and west for 222 miles to the San Francisco Bay Area, terminating in Martinez.

- A Sacramento Mainline from near Ripon north for 63.4 miles, terminating southwest of Sacramento.

- Two loops (Loops 1 and 2) of the existing Mojave Mainline between Topock and Daggett for a total of 52.2 miles.

- A 4.0-mile loop of the East Side Lateral.

- Ten segments extending from the North Mainline for a total of 158.5 miles called the Lindsay, Coalinga, Sanger, Livingston, Ceres, Modesto "B," Tracy, Palo Alto, Antioch, and Fremont Segments.

- Two new compressor stations at Amboy and Daggett and upgrading of the existing compressor station at Topock.

- Thirty-nine meter stations at various points in the system.

Additional Facilities to Serve Customer Group 1

To serve Alternative Customer Group 1 in addition to the Core Customer Group, the core project would be modified by constructing the following additional segments, meter stations, and a compressor station:

- A 51.5-mile-long Famoso Alternative Segment to connect the two disjointed segments of the core project North Mainline.
- Five additional segments extending from the core project for a total of 47.4 miles called the Kingsburg, Turlock "A," Lathrop, and Tracy Segments.
- A new compressor station at Famoso.
- Sixteen additional meter stations at various points along the five additional pipeline segments (table 2-3).

Additional Facilities to Serve Alternative Customer Group 2

To serve Alternative Customer Group 2 instead of Group 1, the core project would be modified by adding the following components:

- A 42.6-mile-long Lindsay Alternative Segment to connect the southern segment of the core project North Mainline with the Lindsay Segment.
- Thirteen additional segments extending from the core project for a total of 76.2 miles called the McFarland, Malaga, Madera, Fairmead, Turlock, Ripon, Sacramento (A-159), Tracy (A-160), Tracy (A-161), Antioch (A-174), Hunters Point, and San Francisco Segments.
- A 0.3-mile-long extension to the Tracy Segment.
- A new compressor station at Lindsay.
- Nineteen additional meter stations at various points along the additional pipeline segments.

The diameters of certain pipeline segments would also be changed.

Land Requirements

Mojave intends to bury its pipeline within or adjacent to existing railroad and surface road rights-of-way for almost 80 percent of the proposed pipeline route. Much of the North Mainline would be within the Southern Pacific (SP) railroad right-of-way where it parallels California State Route 99 through the San Joaquin Valley, or pending the outcome of negotiations with the railroad, just outside the existing 100-foot-wide right-of-way.

Pipe 4 to 8 inches in diameter would require a construction right-of-way up to 30 feet wide, 10- to 16-inch pipe would require up to 65 feet wide, and 20- to 30-inch pipe would require up to 75 feet wide. Because relatively level work spaces are needed for trench excavation equipment, wider construction rights-of-way may be needed on steep grades and in areas of excessive side slope.

Where Mojave loops its existing system, the loop pipeline would be offset 20 feet from pipeline. The loops along the Mojave Mainline and East Lateral would require extending the 75-foot-wide right-of-way by 20 feet. The loops along the Commonline would be placed within the existing 100-foot-wide right-of-way.

Additional work areas outside the typical construction right-of-way would be required where the route crosses paved roads, railroads, rivers, streams, canals, and wetlands. At all road, railroad, and canal crossings, an additional 0.1 acre of temporary work space would be required. At stream and river crossings wider than 100 feet, an additional 1.15 acres would be required, and at stream crossings less than 100 feet wide, an additional 0.18 acre would be required.

The total permanent pipeline right-of-way would be about 800 acres with an additional approximately 5,000 acres of temporarily disturbed construction right-of-way.

The Amboy and Famoso Compressor Stations would require 20 acres each, and the Daggett and Lindsay Compressor Stations would require 17 and 17.23 acres, respectively. The meter stations would be built on fenced sites 100 feet square. The maximum 58 meter stations would require a total of 13.54 acres.

Construction Schedule

Project construction would take nine months. The North and Sacramento Mainlines and various segments would be constructed by four spreads: Spreads I, II, and III in uncongested open areas and Spread II-A in congested urban areas.
1/ The loops would be constructed by two additional spreads, Spreads IV and V. Separate work crews would construct the three new compressor stations and modify the existing Topock Compressor Station.

Future Plans and Abandonment

Mojave has no specific plans for the further expansion of its facilities beyond the proposed project whose economic life is estimated at 30 to 50 years. Mojave would need to obtain authority from the FERC under section 7(b) of the NGA to abandon its facilities.

Relationship to the EIR/EIS

In a separate application to the FERC, Kern River Gas Transmission Company requested authorization to increase its capacity by 452 million cubic feet per day. Kern River's expansion

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1/ A construction spread is a subdivision of a pipeline construction project with its own crew and equipment. Two or more spreads may occur simultaneously.

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would have a minor effect on Mojave's proposed expansion, requiring the construction of additional loop pipeline along the Commonline and East Side Lateral and a reduction in the amount of compression Mojave would install at Daggett. In November of 1994, the FERC determined that Kern River's proposed expansion is not ready to go forward or be reviewed at this time and FERC dismissed, without prejudice, the portion of Mojave's facilities that were added to the project solely to accommodate the possibility of a concurrent Kern River expansion.

Because of timing, the draft EIR/EIS addressed the additional facilities which Mojave would have built to accommodate Kern River; however, since Kern River will not be certificated, this Opinion eliminates the 43.9 miles of looping that was contingent on the Kern River expansion, including Loop 3 (22.9 miles) and the northern portion of Loop 4 (21.0 miles).

In Section 6 of the EIR/EIS, the FERC and SLC staffs recommend adoption of the Tracy to Antioch Southern Pacific Railroad Alternative Route and six minor route variations to significantly reduce the effects of the project on the environment.

Because of the elimination of Loop 3 and most of Loop 4, and the changes in the proposed project due to agency recommended route alternatives and minor route variations, there will be significant differences between the impacts discussed in the EIR/EIS and this Biological Opinion. This Opinion is based on the adoption of these changes rather than the project as proposed in the EIR/EIS. If Mojave does not adopt the recommended Tracy to Antioch alternative route, or if any other changes are made to the project which alter impacts to state-listed species, formal consultation will need to be reinitiated to amend this Opinion.

OVERVIEW OF HABITATS

The proposed project would be located in three physiographic provinces — Mojave Desert, Central Valley, and Coast Ranges-San Francisco Bay Area. About 78 percent of the total route crosses areas that have been extensively altered by human activities such as agricultural lands and disturbed or ruderal lands including urban and industrial areas. The remaining 22 percent of the proposed route crosses natural areas unaltered by human activities.

Mojave Desert

The majority of the proposed route through the Mojave Desert crosses ruderal lands, which consist mainly of previously disturbed pipeline rights-of-way. Most of the rest of the route crosses typical desert scrub areas.

Mojave desert scrub community consists primarily of creosote bush with various shrubs intermixed depending on environmental factors such as soil type, soil moisture and topography. Common shrubs include bursage, spiny hopsage, turpentine-bush, burrobush, saltbush and blackbrush. Joshua trees, various species of cacti (*Opuntia* spp.) and yuccas, are sparsely distributed throughout the entire community. Catsclaw, palo verde, and iron wood occur in washes and arroyos.

Central Valley

The proposed route through the Central Valley crosses mostly disturbed, human-influenced lands. Most of the route is within existing railroad rights-of-way. The natural communities crossed include nonnative grasslands, chenopod scrub communities, and several wetland types including riparian woody and herbaceous vegetation, seasonal wetlands, and vernal pool habitats.

Disturbed habitats include ruderal lands associated with railroads, highways, and other highly modified lands, dominated by weedy plant species, and agricultural areas. Agricultural communities, including row and forage crops, orchards, and vineyards, dominate the landscape crossed by the proposed route through the Central Valley. Annual grasses, forbs, and weedy species may occur on the border of agricultural tracts and in uncultivated patches.

Nonnative grasslands, dominated by introduced annual Mediterranean grasses and herbs, are the most common natural community along the proposed route through the Central Valley. Characteristic nonnative species are red brome, soft chess, ripgut brome, hare barley, wild oats, Italian ryegrass, Arabian schismus, rat-tail fescue, filaree, and bur-clover. Characteristic native species are few-flowered fescue, fiddleneck, goldfields, peppergrass, tarweed, lupine, gilia, owl's clover, and phacelia. These grasslands are present mainly along the southern 16.5 miles of the North Mainline but also in scattered areas along the rest of the North Mainline, Sacramento Mainline, Coalinga and Tracy Segments.

Chenopod scrub communities are generally found in areas dominated by an arid Mediterranean-like climate. Two distinct subcommunities occur along the proposed route: the valley sink scrub and valley saltbush scrub. The valley sink scrub community is a low, open to dense, succulent shrubland dominated by alkali-tolerant chenopods such as iodine bush and sueada. This community generally lacks an herbaceous understory although scattered grasses are found. Dominant species within valley saltbush scrub communities are common saltbush and spiny saltbush. Characteristic species of the understory include paleleaf goldenweed, creamcups, spikeweed, Bakersfield saltbush, Lost Hills saltbush, San Joaquin saltbush, and alkali heath. Much of the chenopod scrub habitat in the Central Valley has been converted to irrigated farmland, dramatically reducing the populations of plants and associated animals that rely on this type of habitat. Chenopod scrub communities would be crossed by portions of the North Mainline and Coalinga Segment.

Riparian woodlands occur along streams and are typically dominated by deciduous woody shrubs or trees. Mature riparian forests are characterized by valley oak or cottonwood, or sometimes sycamore, in the overstory. Elderberry, Oregon ash, and shrubby willows comprise the shrub understory with the willow growing nearest the streams. The herbaceous understory consists of wildrye, mugwort, ragweed, goldenrod, sedge, and nettle. Climbing vines or lianas intertwine with the vegetation in every layer.

Where riparian woodlands have been cleared or otherwise disturbed, riparian scrub-shrub vegetation is often the result. Riparian scrub-shrub may also represent early successional stages of riparian woodland. Dominant species include willows and elderberry, and saplings of these trees are typically found in the woodland overstory. Depending on the density of the shrub layer, the herbaceous layer can range from dense to sparse.

Riparian herbaceous communities in the Central Valley are dominated by perennial, emergent monocots such as tule, bulrush, and cattail, which often grow in dense stands. They occur in backwater areas that are seasonally or permanently flooded in conjunction with riparian woodland and scrub-shrub communities. No purely undisturbed riparian herbaceous communities have been identified which might be affected by the project; the disturbed areas crossed by the route are dominated primarily by opportunistic herbaceous vegetation that is typically associated with secondary succession in these riparian zones.

Seasonal wetlands along the pipeline route support water-tolerant grasses, rushes and other species, but are not associated with stream crossings. They can be associated with minor seeps or seasonal high water tables. Seasonal wetlands are generally scattered along the proposed route through the Central Valley in association with nonnative grasslands.

The proposed route in the northern Central Valley crosses near some areas of northern claypan vernal pools. In addition, the pipeline passes through some non-natural ponding areas which support vernal pool invertebrates.

Coast Ranges - San Francisco Bay Area

In this region, the project would potentially affect ruderal lands, agricultural areas, and some natural communities, including nonnative grasslands, foothill woodland, riparian woodlands and shrublands, and coastal marsh.

The nonnative grasslands in the Coast Ranges-San Francisco Bay Area are similar to those in the Central Valley, although species composition will vary. For example, wild oats are a relatively insignificant component of Central Valley grasslands but a common component of Coast Ranges grasslands.

Three types of foothill woodland communities occur in valley bottoms and on gentle to steep, north-facing slopes in the Coast Ranges: blue oak, valley oak, and mixed north slope cismontane oak. The foothill woodlands crossed by the proposed route are isolated stands of trees in the midst of nonnative grasslands, found in scattered locations on the Palo Alto Segment.

The project would encounter riparian woodland, riparian scrub-shrub, riparian herbaceous communities, at most, if not all of the stream crossings in this region. Coastal brackish marsh and northern coastal salt marsh communities occur at the interior edges of coastal bays and estuaries and are dominated by perennial, emergent, herbaceous monocots such as sedges, rush, bulrush, and cattail as well as pickleweed and salt grass.

OVERVIEW OF IMPACTS

On the basis of informal consultation with agencies and review of existing data, 92 special-status species were identified by Mojave as being potentially affected by the project. During 1993 and 1994, Mojave conducted biological resource surveys to collect information on threatened and endangered as well as other sensitive species of concern. Of the 92 species targeted in the field surveys, 35 were found in or near the proposed pipeline right-of-way and could be affected by the project. All of these 35 species, which include federal and state listed species as well as other species of concern, are addressed in the EIR/EIS.

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This Biological Opinion covers only those species listed under the California Endangered Species Act: the desert tortoise, San Joaquin kit fox, blunt-nosed leopard lizard, Tipton kangaroo rat, Swainson's hawk, giant garter snake, San Francisco garter snake, and the large-flowered fiddleneck. All of these species, except for the Swainson's hawk, are also listed under the federal Endangered Species Act and will be the subject of a Biological Opinion by the Fish and Wildlife Service (USFWS) submitted to the FERC.

In addition to the above species, the EIR/EIS addresses the potential for impacts to the following state-listed species:

Mojave ground squirrel (*Spermophilus mohavensis)*, Alameda whipsnake (*Masticophis lateralis euryxanthus*), Bakersfield cactus,(*Opuntia basilaris treleasei*) palmate-bracted bird's beak (*Cordylanthus palmatus*), Santa Cruz tarplant, Antioch Dunes evening primrose (*Oenothera deltoides howelii*), Contra Costa wallflower (*Erysimum capitatum var. angustatum*). Because of project changes, including dropping Loop 3 and most of Loop 4, and the adoption of the Tracy to Antioch alternative route, these species will no longer be affected and are not addressed in this Opinion. As noted previously, if Mojave does not wish to adopt the Tracy to Antioch alternative, or if the project is otherwise altered, formal consultation will need to be reinitiated to amend this Opinion.

The primary project impacts to listed species would occur with project construction. Sensitive plant species in the proposed pipeline right-of-way would be lost when the right-of-way is cleared, and sensitive animal species could be affected by the temporary loss of habitat during construction. Mobile individuals would likely be displaced to other habitats but could be lost because of intraspecific competition, predation or other stresses. Immobile species and juveniles could be destroyed. Permanent loss of habitat would occur at the new compressor stations. Long-term impact could occur outside the previously disturbed right-of-way in the Mojave Desert where the recovery of sensitive plant species could take 20 to 50 years. Sensitive species could also be affected where blasting is required.

The project will affect about 319 acres of known habitat for the desert tortoise and about 189 acres of known habitat for the San Joaquin kit fox. Small amounts of habitat for the Tipton's kangaroo rat, blunt-nosed leopard lizard and the giant garter snake will be affected as well.

GENERAL MITIGATION MEASURES

Fish and Game Code Section 2091 requires the Department to determine and specify to the State lead agency reasonable and prudent alternatives consistent with conserving the species which would avoid jeopardizing the continued existence of the species. Section 2091 also requires the Department to specify reasonable and prudent measures to minimize the adverse impacts of taking which occurs incidental to the project. The above provisions constitute our conditions pursuant to CESA, and if fully implemented by the SLC, the project is unlikely to jeopardize the continued existence of the listed species identified above, and the adverse impacts from incidental take of the species will be minimized.

As conditions to avoid jeopardy and to reduce incidental take of listed species, the following generally applicable mitigation measures shall be implemented:

1. Prior to commencing any activities authorized by this Biological Opinion, the SLC shall require Mojave Gas Pipeline Operating Company to enter into a California Endangered Species Act Memorandum of Understanding (MOU) with the Department of Fish and Game to implement the reasonable and prudent alternatives contained within this CESA Biological Opinion. The MOU shall provide the Department with direct authority to enforce the conditions to avoid jeopardy and minimize incidental take of the listed species described above, including the authority to seek legal remedies for non-compliance with the conditions.

2. At least 60 days prior to initiation of construction of the project, the SLC shall provide to the Department a detailed Mitigation and Monitoring Plan which is designed to ensure compliance with all adopted project mitigation measures, including the conditions for the protection of biological resources. The Plan shall describe how mitigation measures will be implemented and how their success will be evaluated. Approval of the plan by the Department as it relates to biological resources is required prior to construction.

   The SLC shall designate a specific individual as a contact representative between the SLC, Mojave, the Department, and the USFWS to oversee compliance with protection measures detailed in this Mitigation and Monitoring Plan.

3. At least 60 days prior to initiation of construction of the project, Mojave shall provide to the Department a detailed Implementation Plan which describes how Mojave will implement all environmental requirements of their project, including measures for the protection of biological resources. Approval of the plan by the Department as it relates to biological resources is required prior to construction.

4. The SLC Mitigation and Monitoring Plan and the Mojave Implementation Plan shall be coordinated with respect to biological monitoring, reporting, and authorities.

   a. The SLC and Mojave plans in concert shall ensure that one or more qualified biologists shall be on-site during all activities which may affect sensitive species, including pre-project inspections, construction, and post-project site restoration and revegetation, to help ensure avoidance of individual animals and minimization of habitat destruction.

      Mojave shall provide to the Department and the USFWS a list of qualified biologists, subject to agency approval. The biologists shall be authorized and shall be responsible for the following:

      - survey the area in which the sensitive species may occur immediately prior to grading and follow immediately behind grading equipment to recover dead and injured animals.

- for daily inspections for compliance with all mitigation measures and conditions listed in this Opinion.

- all open trenches and holes shall be inspected 7 days per week for entrapped animals. Authorized biologists shall be supplied with equipment necessary to facilitate removal of any entrapped wildlife. The equipment should minimally include a catch pole, net, heavy gloves, and materials (e.g. plywood) to be used to block animal access to holes and trenches.

b. The SLC and Mojave plans in concert shall specify who will have authority to halt any activities in non-compliance with this Opinion and/or order immediate remediation of non-compliance.

Authorized biologists and the Department shall not be liable nor responsible for any losses or inconveniences suffered by Mojave or its employees, contractors or others caused by the terms of this agreement, including cease-work orders.

c. The SLC and Mojave plans shall require compliance inspections to be conducted once per week and a monthly compliance report shall be provided to the USFWS Sacramento Field Office and the Long Beach, Fresno, Rancho Cordoba, and Yountville Regional Offices of the Department. Inspections shall check for compliance with all of the mitigation measures outlined above and the exclusion zones shall be checked to ensure that the signs, stakes, and fencing are still intact and that human activities have been restricted in these protective zones.

5. Mojave shall perform preconstruction surveys to identify occupied habitats in order to make minor realignments that would avoid damage to listed species and associated habitat, and to provide a baseline against which to measure actual project impact.

Before the initiation of surveys, Mojave shall consult with the Department and the USFWS for survey methods and periods appropriate for each species. The surveys shall be conducted within the timeframes specified by the USFWS and/or the Department. The authorized biologist conducting the surveys shall clearly mark burrows, nests, plant locations, and sensitive species habitat within and adjacent to the construction zone, and fulfill any other requirements specified for each species included in this Biological Opinion.

At least 60 days prior to conducting surveys, Mojave shall submit survey plans to the Department and the SLC for their approval. The survey plans shall include the following information:

- name(s) and qualifications of the person(s) conducting the survey;
- method(s) used to conduct the survey;
- date(s) of the survey; and
- area surveyed (include the mileposts surveys).

6. Mojave shall conduct an employee orientation program for construction crews, and others who will work on-site, or otherwise encounter listed species. The education program shall include a discussion of the biology of the species covered by this CESA Biological Opinion, the habitat needs of these species, their status under the CESA, and potential impacts and measures to avoid or otherwise mitigate impacts of sensitive species and their habitats as a part of the project. A fact sheet conveying this information shall also be prepared for distribution to all employees. Additionally, workers shall be instructed on the penalties for noncompliance with the mitigation plan or violation of the endangered species acts. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be filed at the offices of Mojave and Mojave's contractors and shall be accessible by the Department and USFWS.

7. Mojave shall restore and revegetate all construction sites as provided in the FERC staff's recommended Upland Erosion Control, Revegetation, and Maintenance Plan, the Project Revegetation Requirements, shall comply with the FERC staff's recommended Wetland and Waterbody Construction and Mitigation Procedures, contained in EIR/EIR Appendices A, B, and C, respectively.

8. Mojave's authorized biologists shall inspect each blasting zone immediately before blasting to identify active burrows of San Joaquin kit fox, desert tortoise, and burrowing owl and remove any individuals of these animal species that are seen on the ground surface. After blasting, active burrow entrances shall be checked to ensure that they are open, and, if necessary, active burrows that were plugged or collapsed by the blast shall be excavated and any trapped animals shall be released.

9. Mojave shall clearly delineate project area boundaries, including any exclusion zones, by stakes, flagging, rope or cord, and/or fencing, as directed by the Department, to minimize degradation or loss of adjacent wildlife habitats during facility construction.

10. Mojave shall confine all equipment storage and parking during site development and operation to the construction corridor or to previously disturbed off-site areas.

11. Mojave shall post signs and place fencing around the construction zone to restrict access of vehicles and equipment unrelated to site operations.

12. Mojave shall establish and issue traffic restraints and signs to minimize temporary disturbances. All project-related vehicle traffic shall be restricted to established roads, construction areas, storage areas, and staging and parking areas. Off-road traffic outside of designated project areas shall be prohibited. Project-related vehicles shall observe a 20 MPH speed limit in all project areas except on County roads and State and Federal highways.

13. To prevent entrapment of endangered species or other animals during the construction phase of the project, Mojave shall provide escape ramps as deemed necessary by the Department in all excavated, steep-walled holes or trenches in excess of two feet in depth. Steep-walled holes shall be covered with plywood at the end of each working day. Trenches and holes shall be inspected for entrapped wildlife each morning prior to onset of construction and

immediately prior to being covered with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped animals. Any animals so discovered shall be allowed to escape voluntarily, without harassment, or shall be removed from the trench or hole by a qualified biologist and allowed to escape unimpeded, before construction activities resume.

14. Mojave shall provide that all construction pipes, culverts, or similar structures with a diameter of three inches or greater that are stored at a construction site for one or more overnight periods be thoroughly inspected for trapped kit foxes and other animals before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight shall be capped. If during construction a kit fox or other animal is discovered inside a pipe, that section of pipe will not be moved or, if necessary, will be moved only once to remove it from the path of construction activity until the animal has escaped.

15. Mojave shall provide that all food-related trash items such as wrappers, cans, bottles, and food scraps generated both during construction and during subsequent facility operation be disposed of in closed containers and shall be regularly removed from the site. No feeding of wildlife shall be allowed.

16. To prevent harassment or mortality of wildlife by domestic dogs and cats, no pets shall be permitted on-site.

17. Use of rodenticides and herbicides shall be limited to only within permanently fenced areas, i.e. compressor stations, and to only those chemicals approved by the Department and the USFWS.

18. Any employee who kills or injures a listed species, or who finds any such animal either dead, injured, or entrapped shall report the incident immediately to an authorized biologist who shall, in turn, report the incident or finding to the Department and the USFWS. In the event that such observations are of entrapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape unimpeded. In the event that such observations are of injured or dead animals, the authorized biologist shall immediately notify the USFWS and the Department by telephone or other expedient means and shall then provide formal notification to USFWS, and the Department, in writing, within five working days of the finding of any such animal(s). Written notification shall include the date, time, location, and circumstances of the incident.

    The USFWS contact for this information shall be the Assistant Field Office Supervisor for Endangered Species, (916) 979-2728. The Department contact shall be the Chief of Environmental Services Division, (916)653-4875.

    Any listed species found dead or injured shall be turned over immediately to the Department for care, analysis, or disposition.

19. Within 90 days of completion of the project, the Mojave shall forward to the USFWS Sacramento Field Office and the Long Beach, Fresno, Rancho Cordoba, and Yountville

Regional Offices of the Department, a post-construction compliance report prepared by a qualified biologist. This report shall detail the following: 1) dates that construction occurred; 2) pertinent information concerning the success in meeting project mitigation measures; 3) an explanation of failure to meet such measures, if any; 4) known project effects on all of the affected listed species enumerated in this Biological Opinion, including the number of dens and burrows destroyed, if any, in a timely manner, as provided herein; and 5) other pertinent information.

LISTED SPECIES

DESERT TORTOISE (*Gopherus agassizii*)

The desert tortoise is state- and federally-listed as threatened. It is a medium-sized tortoise with an adult carapace length of about 200-380 mm. Males average larger than females and are distinguished by having a concave plastron, longer gular horns, larger chin glands on each side of the lower jaw and a longer tail. Carapace color varies from light yellow-brown (horn color) to dark grey-brown. A composite of characteristics is often necessary to distinguish the desert tortoise from other species of gopher tortoises, but its most unique feature is its very large hind feet.

The desert tortoise ranges from southern Nevada and extreme southwestern Utah south through southeastern California and southwestern Arizona into northern Mexico. In California, the species occurs in northeastern Los Angeles, eastern Kern and southeastern Inyo counties, and over most of San Bernardino, Riverside and Imperial counties except for the Coachella Valley. The species inhabits washes, rocky hillsides, and flat desert having sandy or gravelly soil. Vegetation comprising their habitat includes creosote bush, burrobush, saltbush, Joshua tree, Mojave yucca and cacti, along with other shrubs, annual grasses and forbs.

Habitat of the species in California has been reduced 50 to 60 percent since the 1920's and is now highly fragmented. Habitat loss and degradation has occurred as a result of a combination of human-related activities, including residential and commercial development, livestock grazing, energy and mineral development, ORV use, vandalism (illegal shooting), road and trail construction, and collecting. Major population losses have occurred in recent years, particularly in the western Mojave desert, due to the rapid spread of Upper Respiratory Syndrome. The desert tortoise was listed as threatened by the Fish and Game Commission in June, 1989. The species has also been listed as threatened by the USFWS. Further acquisition of preserve areas will be needed to ensure continued existence of the species.

Project Effects on the Desert Tortoise

Loop 1 from MP 0.0 to MP 10 crosses an area designated as critical desert tortoise habitat by the BLM and USFWS. The remainder of Loop 1 and all of Loop 2 cross areas designated as BLM Category 3 habitat.

The desert tortoise would be susceptible to injury or mortality from crushing during the initial clearing of the construction right-of-way. Tortoises in burrows could be crushed or trapped if the burrows collapse under the weight of construction equipment. Active tortoises might not be able to escape fast-moving machinery within the construction zone or could fall into open trenches and become trapped. These tortoises could be exposed to extreme temperatures if they are removed during the heat of the day in the summer or during early morning low temperatures in the winter and spring. Animals which are displaced by the project may escape direct injury but would have to compete for food and living space with animals in adjacent areas. This would increase these animals' vulnerability to disease, predation, and accidental death due to increased stress levels and unfamiliarity with the relocation area. Additionally, if tortoises have to be handled they may empty their bladders and become dehydrated.

Clearing and compacting the construction right-of-way would result in the long-term loss of desert tortoise habitat. Most of the construction right-of-way for the loops would be within the previously disturbed construction right-of-way for the existing Mojave pipeline. The project would impact an estimated 198.87 acres of previously disturbed Mojave scrub desert habitat, of which 56.67 are considered BLM Category 1 desert tortoise habitat and 142.20 acres are considered BLM Category 3 desert tortoise habitat. Construction of Loops 1 and 2 would require an additional 144.48 acres of previously undisturbed Mojave desert scrub habitat of which 20.61 acres are considered BLM Category 1 desert tortoise habitat, 62.13 acres are considered BLM Category 3 habitat, and 61.75 acres are not considered desert tortoise habitat. Construction of the Amboy and Daggett Compressor Stations would result in the permanent loss of 37 acres of BLM Category 3 habitat, 20 acres at Amboy and 17 acres at Daggett. A total of about 319 acres of desert tortoise habitat will be affected, of which 37 acres would be lost permanently, with the remainder considered a temporary, long-term loss.

Onsite mitigation measures would be implemented to minimize the level of take that might result from construction activities within the entire 75-foot-wide construction right-of-way along the loops in the Mojave Desert, including the portion of the right-of-way disturbed by construction of the original Mojave pipeline and the additional right-of-way disturbed by the new construction. Offsite mitigation is necessary to mitigate for remaining unavoidable impacts due to permanent and temporary habitat loss.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the **desert tortoise** and the adverse impacts from incidental take of the species will be minimized.

1. Habitat Acquisition, Protection and Endowment

   Based on the preconstruction estimates of impacts, (as described in the EIR/EIS and in summarized in the table below) Mojave shall do the following:

   a. Within 12 months of the issuance of the CESA Biological Opinion, Mojave shall acquire **241 acres** of habitat management lands (HM) for the Desert tortoise in a location acceptable to the Department, Bureau of Land Management (BLM), and the USFWS; and perform, or fund the Department's performance of, the initial habitat

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protection for the HM lands to the satisfaction of the Department. Initial protection may include, but is not limited to, trash removal, posting of signs, fencing, or retirement of access rights, as specified and approved by the Department.

b. Immediately upon execution of the MOU, Mojave shall provide to the Department a letter-of-credit in the amount of $120,500 ($500/ acre) to secure the purchase of HM lands. Additionally, Mojave will provide to the Department a letter of credit in the amount of $22,895 ($95/acre) as security for initial habitat improvement. Mojave shall also provide the Department an endowment in the amount of $25,305 ($105/acre) for the long-term management of the HM lands.

2. Within 90 days of completion of construction, Mojave shall prepare a report for the department and the SLC identifying the final project impacts to desert tortoise habitat. The report shall include a comparison of planned and as-built habitat disturbance. If it is determined that greater than 318.61 acres of desert tortoise habitat were disturbed by the project, the Department shall require Mojave to provide additional compensation within 12 months of completion of the project.

The determination of compensation for loss of habitat follows BLM and the Department guidelines for projects affecting less than 1,000 acres. To compensate for long-term or permanent loss in undisturbed habitat, Mojave shall provide offsite compensation at a ratio of 4.0 acres for every 1.0 acre lost, or 4.0:1, for Category 1 habitat; and a ratio of 1:1 for Category 3. These ratios are based on factors including the category of BLM habitat, impact on adjacent lands, growth inducements as a result of the development, existing disturbance and duration of effect.

Mojave shall also provide off-site compensation for the previously disturbed rights-of-way located within desert tortoise habitat. Redisturbance of the previously impacted area will delay its "substantial recovery" (as defined in Appendix D of the EIR/EIS). Substantial recovery is assumed to require a total of 25 years. Therefore, the compensation ratios to be used shall be those derived for BLM Category 1 and 3 lands, decreased by a factor of X/25ths, where X is equal to the years since the previous disturbance. As of 1995, this factor is assumed to be 4/25, or 0.16.

Estimated impacts and compensation acreages for the desert tortoise are summarized below:

	Compensation Ratio	Impacts	Compensation
Undisturbed			
Category 1	4:1	20.61ac	82.44ac
Category 3	1:1	99.13	99.13
Previously Disturbed			
Category 1	4:1x(.16)	56.67	36.27
Category 3	1:1x(.16)	142.20	22.75
TOTALS		318.61	240.59

3. Mojave shall hire qualified biologists who shall be authorized to remain on-site during construction activities. The authorized biologists shall be approved by the Department, the USFWS, and the SLC prior to the onset of construction activities.

4. All construction and maintenance workers shall participate in a desert tortoise education program. The project shall develop this program prior to initial construction activities or shall modify an existing program to suit the needs of this project. The program shall include the following topics: occurrence of desert tortoise within the affected area, sensitivity of the species to human activities, legal protection for desert tortoise, penalties for violations of Federal and State laws, general activity patterns, reporting requirements, and project measures designed to reduce impacts to the desert tortoise. Employees shall be forewarned that tortoises seeking shade may crawl beneath parked vehicles or equipment, and that to avoid crushing tortoises, the ground beneath all parked vehicles shall be checked prior to moving vehicles or equipment. A fact sheet conveying this information shall also be prepared for distribution to all employees. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be filed at the offices of Mojave and their contractors and shall be accessible to the Department and the USFWS.

5. All pre-construction activities which could take desert tortoises in any manner (e.g. driving off an established road, clearing vegetation, etc.) shall occur in the presence of the authorized biologist. The biologist shall travel with each work crew to ensure that all desert tortoises and their burrows are avoided during these activities. Any hazards to desert tortoises that may be created by this activity shall be eliminated prior to the work crew leaving the site.

6. The construction right-of-way shall be clearly marked or flagged at the outer boundaries, prior to the onset of construction. All construction workers shall be instructed that their activities shall be confined to locations within the flagged or marked areas.

7. a. The project area shall be surveyed for desert tortoise burrows 24 hours prior to the onset of construction. The inspections shall be conducted by qualified biologists and shall provide 100% coverage of the right-of-way. Those burrows within the project area which cannot be avoided shall be excavated in accordance with the USFWS's approved guidelines and handling procedures. Measures will be taken to prevent tortoises from re-occupying the burrow sites. Burrows shall be excavated and tortoises handled only by authorized biologists.

   b. All tortoises found on the project site, whether above ground, in excavated burrows, or in an open trench shall be moved 300 to 1,000 feet outside of the right-of-way in undisturbed habitat by the authorized biologist. Desert tortoises shall be placed in the shade of a large, marked shrub, or placed in an artificial burrow, if during estivation or hibernation. Disposable latex gloves shall be used to handle all desert tortoises. All desert tortoise handling and relocation shall be done in accordance to USFWS approved protocols.

c. Each desert tortoise found within a trench, in excavated burrows or above ground within 3 hours of nightfall or when ambient air temperatures exceed 90 degrees Fahrenheit shall be placed in a clean disposable cardboard box and held overnight in a cool location. The box shall be covered and kept in possession of the authorized biologist for release the next morning in the manner described above. Cardboard boxes used to hold desert tortoises shall be new, used once, and discarded. All materials which come in contact with desert tortoises shall be used only once and then properly discarded to minimize contact with the causative factor(s) for upper respiratory tract disease. Tortoises shall be kept upright of all times and handled in a secure but gentle manner to minimize stress including the possibility of voiding the bladder.

d. Any desert tortoise burrow that may be affected (within 30 feet of trenching activities or in the opinion of the authorized biologist) shall be clearly marked by the authorized biologist to avoid crushing and shall be carefully monitored to ensure that the desert tortoise and its burrow are not taken. If the authorized biologist determines that this monitoring effort is insufficient to protect the desert tortoise, temporary fencing shall be placed between the burrow and the construction area in a manner that will direct the desert tortoise away from harm's way. The fence shall be installed and removed either by, or under the direction of, the authorized biologist.

8. These fences, if installed, shall remain in place until construction in the vicinity has been completed and all equipment removed, at which time the enclosures shall be promptly removed under the direction of the designated biologists. No construction activities shall be authorized within these enclosures.

9. Tortoises shall be purposefully moved only by authorized personnel, solely for the purpose of moving tortoises out of harm's way. If a tortoise is endangered by any form of construction activity, that activity shall cease until a biologist, as described above, is able to move the tortoise to safety.

10. A Memorandum of Understanding, with the Department, to handle desert tortoises shall be obtained prior to onset of activities.

11. Parking and equipment storage shall be confined to previously disturbed areas (i.e. lacking vegetation). Such areas shall be designated by some visible means (i.e. flagging or fencing) and posted with signs. If previously disturbed areas are not available, these activities shall be restricted to within the right-of-way and vehicles shall be inspected by the on-site biologist prior to use.

12. The development of all access and right-of-way roads associated with construction shall be minimized and constructed without blading where feasible. All roadways not necessary for continued facility maintenance shall be blocked and ripped following construction completion to prevent public use.

13. Pipeline trenches shall be constructed within roadway alignments whenever possible to reduce the loss of desert tortoise habitat and disturbance to desert tortoise burrows and native plants.

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14. Trenches or holes not refilled immediately shall be inspected for trapped desert tortoises two times a day and immediately prior to backfilling by the authorized biologist. Monitors shall inspect the underneath of all vehicles and equipment prior to use. Any desert tortoises found shall be relocated as described in 7a and 7b above.

15. Following construction, all areas requiring maintenance or repair shall be inspected for desert tortoises and their burrows prior to initiation of the work. The inspection shall be conducted by an authorized biologist and shall provide 100% coverage of the repair area no more than one (1) day prior to initiation of repair work. If such maintenance work will require that desert tortoises be moved or if any desert tortoises may be at risk, a biologist authorized by the Department and the USFWS shall be retained by Mojave to ensure the safety of the desert tortoises.

16. Compliance inspections shall be conducted once per week and a monthly compliance report shall be provided to the Department's Chino office, and the USFWS's appropriate regional office. Inspections shall check for compliance with all of the mitigation avoidance measures outlined above and the exclusion zones shall be checked to ensure that the signs, stakes, and fencing are still intact and that human activities have been restricted in these protective zones. A post-construction compliance report shall be provided to the Department's Chino office and the appropriate USFWS regional office within 90 calendar days following project completion. The report shall document the effectiveness of the mitigation measures, the level of take associated with the project including the number of desert tortoises excavated from burrows, and the number of desert tortoises moved from construction sites. The report will make recommendations for modifying or refining the above conditions to enhance desert tortoise protection or to reduce needless hardship on project applicants.

17. If in any event a desert tortoise is injured as a result of construction activities, it shall be immediately taken to a Department approved veterinarian clinic. Any veterinarian bills for such injured tortoises will be paid by Mojave. The recuperated tortoise will be conveyed to the appropriate place to be determined by the Department and the USFWS. Notification to the Department and the USFWS shall occur in writing, within 5 calendar days of the incident. Notification shall include the date, time, location and circumstances of the incident.

18. If a tortoise is killed by construction activities, or if a tortoise is otherwise found dead, a written report shall be sent to the Department and the USFWS within five (5) calendar days. The report will include the date, time of the finding or incident (if known), location of the carcass and the circumstances (if known). Tortoise remains shall be collected and frozen as soon as possible. The Department or the USFWS shall be contacted as to the ultimate disposition of the remains.

19. Construction and maintenance vehicles shall not exceed a speed of 20 miles per hour in desert tortoise habitat.

20. Trash and food items shall be removed daily by the construction workers, placed in raven-proof containers and promptly removed to an approved disposal site to avoid attracting common ravens.

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21. Unless otherwise determined, the Department regional representative for tortoise issues shall be Mr. Frank Hoover, Chino Fish and Wildlife Base, 4775 Bird Farm Road, Chino Hills, CA 91709, (909) 597-8235 and FAX (909)597-0067.

22. The Department regional representative shall be requested to attend any consultation with the USFWS.

23. Project personnel shall not discharge firearms on the project site.

24. To prevent tortoise harassment or mortality or destruction of tortoise habitat, dogs shall not be allowed on the project site.

25. Disturbed areas shall be revegetated with native species to accelerate recovery of the habitat. The project proponent shall monitor the effects of revegetation. Information on plant species composition and absolute cover shall be measured during April and October of each year following construction for at least three years. A vegetation monitoring plan shall be developed by the project proponent and submitted to the Department and SLC for review and approval prior to initiation of construction.

SAN JOAQUIN KIT FOX (*Vulpes macrotis mutica*)

The San Joaquin kit fox, a state threatened and federal endangered species, is one of eight recognized subspecies of kit fox. It resembles a small lanky dog in appearance, with proportionately large ears that have an abundance of large white inner guard hairs. Total length is about 32 inches, including a 12 inch black-tipped tail. Coloration ranges from light buff to grayish along the back and tail; gray, rust, or yellowish along the sides; and white along the belly.

San Joaquin kit foxes hunt for rodents, rabbits, and other prey by night from dens that are typically excavated in loose soil. Individual animals may utilize from three to 24 separate dens. Individual den entrances may range from one to 36, and may extend into several tunnels and chambers reaching depths of up to 10 feet. Man-made structures such as culverts and pipes may also be utilized as dens. Den entrances are characteristically higher than wide, and are sufficiently small to prevent access by larger carnivores such as coyotes. Den entrance hole dimensions are generally about 8-10 inches in height and less than 8 inches in width, but may be as small as 4 inches in width. Burrows of other animals, particularly California ground squirrels *(Spermophilus beecheii)*, may also be opportunistically enlarged and utilized as den sites by San Joaquin kit foxes. Although occupied dens may show freshly excavated soil, scats, and prey remains, such obvious sign may also be inconspicuous or absent.

San Joaquin kit foxes forage and live in an area of 1-2 square miles. Mating occurs in December-January. Pups are born in February-March, and begin to disperse at around five months of age. Survival rates of kit fox pups are low; about 75 percent of such animals die before the age of eight months. Mortality for this species has been documented from attacks by coyotes, road kills, conversion of habitat, shooting, drowning, entombment, pneumonia, and starvation. Additionally, widespread use of rodenticides may result in mortality, since kit fox are extremely vulnerable to secondary poisoning through consumption of poisoned ground squirrels or other scavenged rodents.

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The San Joaquin kit fox historically was distributed over a large portion of central California, extending roughly from southeastern Contra Costa County south along the eastern edge of the Interior Coast Range to the southern San Joaquin Valley, including major portions of western Kern County and Tulare County. San Joaquin kit fox were also distributed through adjacent valleys, foothills, and plains, including portions of San Luis Obispo County, Monterey County, and the Santa Clara Valley on the western side of the Interior Coast Range.

Habitat conversion has been the principal reason for both State listing and Federal listing of the San Joaquin kit fox. Agricultural development is the principal contributing factor to this decline of available kit fox habitat. Approximately 42 percent of "suitable" kit fox habitat has been lost as a result of such developments.

Project Effects on the San Joaquin Kit Fox

On the basis of the field surveys, potential kit fox habitat occurs along the North Mainline south of MP 89/97, between MP 0 and MP 51 of the Coalinga Segment, between MP 0 and MP 7 of the Lathrop Segment, between MP 0 and MP 17 of the Lindsay Segment, and between MP 7 and MP 28 of the Palo Alto Segment. Confirmed sightings occurred between MP 8 and MP 10 on the North Mainline, and between MP 48 and MP 49 on the Coalinga Segment.

Project activities could result in the temporary loss of kit fox habitat, the disturbance or mortality of individual kit foxes, the destruction of potential and active dens, and a temporary decline in prey species. Trench excavation and right-of-way clearing could potentially cause direct kit fox mortality by destroying occupied dens or could decrease reproductive success by eliminating natal dens during nonbreeding periods. Vehicular traffic could also result in direct mortality. Kit foxes could be attracted to stored pipe and construction equipment, further increasing the potential for construction-related impact.

The potential for construction-related mortality would also depend on the quality of habitat adjacent to the construction right-of-way and the density of kit fox in the area.

In the southern Central Valley, approximately 39.93 acres of good-quality San Joaquin kit fox habitat within chenopod scrub communities would be temporarily lost if either additional Customer Group 1 or 2 were served. The temporary loss of approximately 123.15 acres of good-quality habitat in nonnative grassland communities would also occur if Customer Group 1 were served whereas approximately 154.52 acres would be temporarily lost if Customer Group 2 were served.

Although a portion of the pipeline construction right-of-way would be designated permanent right-of-way, no permanent facilities or access roads would be maintained, and the land would be restored to its original condition after construction. The only permanent loss of kit fox habitat would occur at the aboveground facilities, i.e., the Lindsay or Famoso Compressor Station and meter stations. Construction of the Lindsay or Famoso Compressor Station would result in the permanent loss of 17.28 or 20.0 acres of good-quality habitat, respectively.

Poor-quality habitat is defined as agricultural, urban, and disturbed lands within the occupied range of the San Joaquin kit fox in the southern San Joaquin Valley. Approximately 1,027 acres of this type of habitat would occur within the proposed construction right-of-way if additional Customer

Group 1 were served, whereas approximately 988 acres would occur within the proposed construction right-of-way if additional Customer Group 2 were served.

In the Coast Ranges, the project mainline as originally proposed would result in the temporary loss of 398.45 acres of nonnative grassland and oak woodland habitat. The Tracy to Antioch Southern Railroad Alternative will avoid approximately 210 acres of impact, with 188.45 acres of impacts remaining. The railroad right-of-way along the Alternative may provide poor-quality kit fox habitat.

Direct mortality as a result of entrapment of kit foxes in dens or excavations would be minimized by avoiding known dens wherever possible. Where avoidance is not possible, hand excavation of known and potential dens within the construction right-of-way would be conducted following consultation with the USFWS and the Department using techniques approved by those agencies as stated in "Standardized Recommendations for Protection of the San Joaquin Kit Fox" (USFWS, 1989).

On-site revegetation and restoration will partially offset impacts due to loss of habitat. Offsite mitigation in the form of habitat compensation is necessary to mitigate for remaining impacts due to permanent and temporary habitat loss.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the San Joaquin kit fox and the adverse impacts from incidental take of the species will be minimized.

1. Habitat Acquisition, Protection and Endowment

   Based on preconstruction estimates of impacts (as described in the EIR/EIS and summarized in the table below), Mojave shall do the following:

   a. Within 12 months of issuance of the CESA Biological Opinion, Mojave shall acquire **349 acres for Group 1, or 350 acres for Group 2**, of habitat management lands (HM) for the San Joaquin kit fox in two locations (**208 acres** north of Highway 152 and **141 acres** for Group 1 or **142 acres** for Group 2 south of Highway 152) acceptable to the Department and the USFWS; and perform, or fund the Department's performance of, the initial habitat protection for the HM lands to the satisfaction of the Department. Initial protection may include, but is not limited to, trash removal, posting of signs, fencing, or retirement of access rights, as specified and approved by the Department.

   b. Immediately upon execution of the Mitigation Agreement, Mojave shall provide to the Department a letter of credit to secure the purchase of HM lands in the amount of $397,200 ($1,500/acre north of Highway 152 and $600/acre south of Highway 152). Additionally, a letter-of-credit to secure the initial protection and improvements of the HM lands will be required in the amount of $35,000 ($100/acre). Mojave shall also provide to the Department and an endowment in the amount of $165,900 ($474/acre) for the long-term management of the HM lands.

2. Within 90 days after completion of construction, Mojave shall prepare a report for the Department and the SLC, identifying the final impacts of the project on San Joaquin kit fox habitat. The report

shall include a comparison of planned and as-built habitat disturbance. If it is determined that greater than the estimated amounts of kit fox habitat were disturbed by the project, The Department shall require Mojave to provide additional compensation within 12 months of completion of the project.

Note: HM lands, selected for kit fox shall also include, as a component, suitable habitat for blunt-nosed leopard lizard to address project impacts to the lizard (See blunt-nosed leopard lizard discussion below.

The determination of compensation for loss of habitat follows Department and USFWS agency staff recommendations for the San Joaquin kit fox: for permanent loss of grassland in the Central Valley south of Highway 152, the habitat compensation ratio is 3 acres for every 1 acre impacted, or 3:1; for temporary impacts to grassland in the Central Valley south of Highway 152, the ratio is 0.3:1; for temporary loss of chenopod scrub in the Central Valley, the ratio is 1.1:1; for temporary loss of grassland in the Central Valley north of Highway 152 and in the Coast Ranges, the ratio is 1.1:1.

No habitat compensation acreage shall be provided for the temporary loss of marginal-quality kit fox habitat in agricultural, urban, and disturbed lands unless evidence of an active den is found within or adjacent to the construction right-of-way. If an active den is discovered during the preconstruction surveys, the resource agencies shall be notified, and appropriate compensation acreage shall be determined.

Estimated impacts and compensation acreages for the San Joaquin kit fox are summarized below:

	Compensation Ratio	Impacts Group 1 (Acres)	Group 2	Compensation Group 1 (Acres)	Group 2
South of Hwy 152					
Grassland, temporary impacts	0.3:1	123.15	154.52	36.95	46.35
Grassland, permanent impacts	3.0:1	20.00	17.28	60.00	51.84
Chenopod scrub, temporary impacts	1.1:1	39.93	39.93	43.92	43.92
Southern Subtotal				**140.87**	**142.11**
North of Hwy 152					
Grassland, temporary impacts	1.1:1	188.45	188.45	207.30	207.30
Total kit fox compensation acreages				**348.17**	**349.41**

3. Within 30 days prior to initiation of construction, Mojave shall hire qualified biologists acceptable to the Department and the USFWS and authorized, to conduct a pre-activity survey to re-inventory the lands (including a 150 foot-wide buffer zone around the areas subject to construction or habitat modification including vegetation clearance and grading) for the occurrence of San Joaquin kit fox. The inventory shall be conducted by an authorized biologist with prior inventory experience for the San Joaquin kit fox. Such an inventory is necessary to implement protection measures described below.

4. Fenced exclusion zones shall be established by authorized biologists within 30 days prior to initiation of construction around all kit fox dens within 150 feet of the clearing area that may be affected by construction activities. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den entrances:

    potential kit fox den: 50 feet -known kit fox den: 100 feet - kit fox pupping den: 150 feet

    Exclusion zones shall be maintained until all initial ground clearing activities have been completed, and then shall be removed. If specified exclusion zones cannot be observed for any reason, USFWS and the Department shall be contacted for guidance prior to ground disturbing activities on or near the subject den or burrow.

    If dens or burrows are located outside of, but within 50 to 150 feet of, (depending on the buffer designated for the den type as listed above) the construction zone, the boundary of the buffer shall be drawn to include all areas within the radius stated above, except those falling within the construction zone. Dens falling within the buffer area shall not be excavated. After kit fox dens are determined to be empty in accordance with procedures outlined below, they shall be covered with plywood which is firmly secured to prevent access by kit fox. The covers shall not be installed more than 14 days prior to the start of construction. The cover shall remain in place for the duration of construction, after which time it will be removed.

5. All known and potential San Joaquin kit fox dens within the specified construction corridor shall be excavated by an authorized biologist pursuant to conditions described below prior to the onset of construction activities. Excavation of kit fox dens within the construction corridor must be authorized by the Department and USFWS.

6. Destruction of a potential kit fox den may proceed without prior notification to the Department and USFWS if no current or previous use of the den by kit foxes is known, as determined by an authorized biologist. However, if during excavation any potential den is determined to be a currently or previously used kit fox den (e.g., if kit fox sign is found inside), the Department and USFWS shall be notified immediately of the change in status.

7. As close to the beginning of construction as possible, but not more than 14 days prior to the onset of construction, authorized biologists shall conduct a final pre-construction survey of the construction zone to insure that no San Joaquin kit fox have either reoccupied existing dens, or constructed new dens. If any occupied dens are found, the procedures detailed above shall be followed.

8. In the event that the Department and USFWS concur that an occupied San Joaquin kit fox den will be unavoidably destroyed by planned project action, the procedures detailed in the USFWS "Standardized Recommendations for Protection of the San Joaquin Kit Fox, April 1989" (Appendix D in the EIR/EIS) shall be implemented, except as they are modified by the measures set forth in this plan.

    If, after following all procedures detailed in the Standardized Recommendations, the authorized biologist is unable to successfully ensure protection of individual kit foxes, he or she shall contact the Department for further guidance.

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9. The Applicant shall notify the Department (Regional Manager's Office) no less than 14 days prior to the commencement of permitted activities.

10. Construction during evening hours, when kit foxes are active and most vulnerable to vehicle or equipment-induced injury or mortality, shall be minimized.

BLUNT-NOSED LEOPARD LIZARD (*Gambelia silus*)

The state and federal endangered blunt-nosed leopard lizard is a relatively robust species with a large blunt head. It historically was distributed over the San Joaquin Valley and adjacent foothills, plains, and valleys. Adults are approximately 3.5 to 5 inches in snout-vent length , and may be up to 13 inches in total length. Coloration consists of a light grayish, tan, or brown background with a conspicuous pattern of dark overlaying spots and pale cross-bars. During the courtship season (spring) both sexes may develop reddish markings on the sides, tail, and belly. From two to three eggs are laid in excavated chambers at the end of rodent burrows. Hatchlings emerge in early August. Blunt-nosed leopard lizards are active during the day, usually when air temperatures are between 75 and 95 degrees Fahrenheit. Most activity occurs between the months of April and early October; animals will overwinter underground in rodent burrows. Food consists primarily of insects such as grasshoppers, although smaller lizards may also be consumed.

Leopard lizards occur on "sparsely vegetated" plains, lower canyon slopes, on valley floors, and in washes. Vegetation may include a variety of grasses, saltbush *(Atriplex* spp.*)*, goldenbush *(Happlopappus* sp.*)*, iodine bush *(Allenrolfea occidentalis)*, and seep-weed *(Suaeda fruticosa)* . Results of several systematic inventories for the species on Federal lands in the San Joaquin Valley region have demonstrated an affinity for open habitats, wash systems, and relatively level topography.

Population densities of blunt-nosed leopard lizards are highly variable. In a study of two sites near Taft (Kern County), estimated densities were between 0.1 and 0.5 lizards per acre. Densities of blunt-nosed leopard lizards obtained from analyses of several survey plots at Pixley National Wildlife Refuge (Tulare County) ranged from 0.12 to 4.14 lizards per acre.

Habitat loss is the principal reason for both State and Federal listing. Much of the historical habitat of this species has been altered as a result of agricultural production. Data generated by the Department show that approximately 93 percent of wildlands present in the San Joaquin Valley were lost by 1979; remaining habitats (exclusive of those receiving current protection) will be lost under present rates of development by 1996. In addition to agricultural development, other factors influencing this species include mineral development, livestock grazing, and application of some pesticides.

Project Effects on the Blunt-nosed leopard lizard

On the basis of the field surveys, occupied habitat is present between MP 8 and MP 11 of the North Mainline, and between MP 48 and MP 51 of the Coalinga Segment.

The potential impact on blunt-nosed leopard lizard is similar to that described above for San Joaquin kit fox. Direct mortality of blunt-nosed leopard lizards could occur during pipeline construction because of entrapment in burrows during construction, entrapment and subsequent burial in the pipeline trench, or impact with construction vehicles. Construction activities could cause reproductive failure if they occur during the breeding season. Pipeline construction could result in the temporary loss of 39.93 acres of blunt-nosed leopard lizard habitat. No permanent loss of habitat would result because there would be no permanent aboveground facilities in identified leopard lizard habitat.

Direct mortality of blunt-nosed leopard lizard as a result of construction-related activities would be minimized by avoiding known burrows by minor route realignment or restricting the width of the construction right-of-way where possible. When avoidance is not possible, construction-related impact would be mitigated by applying the following measures in addition to the general mitigation measures listed above.

The blunt-nosed leopard lizard habitat identified during the field surveys is entirely encompassed within good-quality San Joaquin kit fox habitat; therefore, temporary loss of blunt-nosed leopard lizard habitat would be mitigated simultaneously by providing habitat compensation acreage for San Joaquin kit fox.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the **blunt-nosed leopard lizard** and the adverse impacts from incidental take of the species will be minimized:

1. Preconstruction surveys of blunt-nosed leopard lizard habitat shall be conducted by authorized biologists within 30 days before startup construction activities, if in the appropriate season and under suitable weather conditions. Occupied and potential habitat shall be marked on the alignment sheets.

2. Following the preconstruction surveys but before construction, circular exclusion zones shall be established around all known or likely leopard lizard burrows. Vehicle activity, equipment storage, and construction, shall be prohibited or minimized within the exclusion zones.

3. Any known leopard lizard burrows within the construction right-of-way that could not be avoided shall be carefully excavated by authorized biologists following USFWS protocol using hand tools until it is certain that the dens are inactive or the lizards escape.

4. When blunt-nosed leopard lizards are expected to be active (air temperatures of 75 to 95°F), open trenches in blunt-nosed leopard habitat shall be inspected at least twice a day and immediately before backfilling. Lizards in trenches shall be removed by the authorized biologists.

5. Immediately before ground disturbing activities, the right-of-way shall be inspected for active blunt-nosed leopard lizards.

6. If blunt-nosed leopard lizards are observed in the right-of-way, authorized biologists will remove them from harm's way.

TIPTON KANGAROO RAT (*Dipodomys nitratoides nitratoides*)

The state and federal endangered Tipton kangaroo rat is one of three recognized subspecies of the San Joaquin kangaroo rat (*Dipodomys nitratoides*). The historic range of the Tipton kangaroo rat extended over the Tulare Basin portion of the San Joaquin Valley floor; from Lemoore and Hanford in the north, south approximately the Kern River in the vicinity of Bakersfield. The range extended as far east as Delano and to Kettleman City to the west. Preferred habitats consist of alkaline sink communities, with "characteristic" shrub vegetation such as saltbush (*Atriplex spp.*), iodine bush

(*Allenrolfea occidentalis*), and seep-weed (*suaeda fruticosa*). Habitats also includes saltbush scrublands characterized by several species such as *Atriplex polycarpa, A. spinifera, A. lentiformis,* and *A. phyllostegia*.

The Tipton kangaroo rat is a small species of the genus *Dipodomys*, approximately 8 to 9 inches in total length. Overall appearance is that of a compact rodent, with a flattened head with small ears, short neck, and cylindrical body. The hind legs are elongated, and serve as the principal means of locomotion. A long tufted tail, comprising about one-half of the total length of the animal provides balance. Coloration is brownish above, changing to whitish ventrally. The underside of the tail is also white in coloration. The presence of four toes on the feet of this taxon distinguishes it from other kangaroo rat species with which it is sympatric.

Shallow burrows are excavated from which the animal leaves at night to forage for seeds that are cached. Fur-lined cheek pouches are used by these animals to hold seeds collected while foraging. Burrows are often placed on slightly elevated ground to reduce the likelihood of seasonal flooding; such sites include "the berms of roads (where placed above ground level, canal embankments, railroad beds, and bases of shrubs and fences where windblown soils accumulate above the surrounding terrain."

Little information is available regarding population densities of the Tipton kangaroo rat. The assessment of the status of the species for the USFWS relied heavily on population studies conducted on the closely related Fresno kangaroo rat (*Dipodomys nitratoides exilis*). Population densities range from approximately 7 to 10 per acre. Population turnover is rapid; very few individual animals probably survive more than one year. Density estimates for the Tipton kangaroo rats range between 0.65 and 1.95 per acre west of Buttonwillow, and between 0.6 and 3.06 per acre on the Paine Wildflower Preserve, Kern County.

Habitat loss as a result of agricultural production was the primary reason for designating this rodent as a State- and Federal-listed endangered species. The original geographic range of the Tipton kangaroo rat encompassed 1,716,000 acres. As of July 1985, only 63,500 acres (3.7%) remained. The extant habitat is primarily comprised of widely scattered small parcels separated by agricultural fields. A detailed listing of known occupied habitat is available. Additional factors contributing to the endangerment of the Tipton kangaroo rat include habitat modification associated with urbanization and possibly rodenticide use.

Project Effects on the Tipton Kangaroo Rat

On the basis of the field surveys, a small area (less than 0.1 mile) of disturbed occupied habitat is present between MP 47 and MP 48 on the North Mainline (Famoso Alternative).

Construction activities on the North Mainline could result in the temporary loss of Tipton kangaroo rat habitat if Additional Customer Group 1 is served and the disturbance or mortality of individual kangaroo rats. Trench excavation and right-of-way clearing could potentially cause direct mortality by destroying occupied burrows or could decrease reproductive success if conducted during the breeding period. Vehicular traffic could also result in direct mortality, and kangaroo rats could be attracted to stored pipe and construction equipment and food-related trash, further increasing the potential for construction-related impact. Construction will not result in the permanent loss of Tipton kangaroo rat habitat because no permanent facilities are proposed within occupied kangaroo rat habitat. Construction would result in the temporary loss of 2.7 acres of habitat.

Direct mortality of Tipton kangaroo rat during construction would be minimized by restricting the width of the construction right-of-way and establishing exclusion zones around known burrows. Trapping and relocation of individual kangaroo rats would not be performed at the known site because it is assumed that kangaroo rats displaced by construction would move into natural habitat adjacent to the construction right-of-way.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the **Tipton kangaroo rat**, and the adverse impacts from incidental take of the species will be minimized:

1. Preconstruction surveys shall be conducted by authorized biologists within 30 days before starting construction activities in order to update the status of the Tipton kangaroo rats within the construction right-of-way. The surveys for the Tipton kangaroo rat would be conducted between Pixley and Tulare on the North Mainline simultaneously with the preconstruction surveys for San Joaquin kit fox.

2. Following the preconstruction surveys but before construction, circular exclusion zones shall be established around all known Tipton kangaroo rat burrows. Vehicle activity, equipment storage, and construction shall be prohibited or minimized within the exclusion zones.

3. All pipes, culverts, and similar structures shall be inspected by authorized biologists before burying, capping, or otherwise installing in the trench.

SWAINSON'S HAWK (*Buteo swainsoni*)

The Swainson's hawk is a state-listed threatened species. It is a medium-sized buteo with relatively long, pointed wings and a long, square tail. The species occurs in three main color morphs: light, rufous and dark, with intermediates, all of which have been observed in California populations. Adult birds have dark brown heads with a dark breast band which is set off from a lighter-colored belly in lighter morph birds. In dark birds, however, the entire body may be a sooty-brown to black color. The throat is white or partially white in dark birds. The wings are bicolored underneath with the wing linings generally lighter than the dark flight feathers. Adult females weight 28 to 34 ounces and males 25 to 31 ounces.

Swainson's hawks that breed in California spend the winter in South America as far south as Argentina. The diet of the Swainson's hawk is varied with the California vole being the staple in the Central Valley. A variety of birds and insects are also taken. Swainson's hawks often nest peripheral to riparian systems as well as utilizing lone trees or groves of trees in agricultural fields. Valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), walnut (*Juglans hindsii*) and large willow (*Salix spp.*) with an average height of about 58 feet (41-82 feet) are the most commonly used nest trees in the Central Valley. Swainson's hawks in the Great Basin area of the State (northeastern counties) occupy the juniper-sagebrush community typical to the area. Junipers (*Juniperus occidentalis*), with an average height of 15 feet are most commonly used as nest trees in the Great Basin. The diet of Great Basin populations of Swainson's hawks consists of montane meadow voles (*M. montanus*) and Belding's ground squirrels (*Spermophilus beldingi*).

Swainson's hawks require large, open grasslands with abundant prey in association with suitable nest trees. Suitable foraging areas include native grasslands or lightly-grazed pastures, alfalfa and other hay

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crops and certain grain and row croplands. Unsuitable foraging habitat includes row crops in which prey are scarce or unavailable due to the density of the vegetative cover. Those include vineyards, orchards, rice, corn and cotton crops. Suitable nest sights may be found in mature riparian forest, lone trees or groves of oaks and other species in agricultural fields and mature roadside trees. Over 85 percent of Swainson's hawk territories in the Central Valley are in riparian systems adjacent to suitable foraging habitats.

Swainson's hawks were once found throughout lowland California and were absent only from the Sierra Nevada, north coast ranges and Klamath Mountains and portions of the desert regions of the State. In the Central Valley, the trend toward planting of more crops that are unsuitable for Swainson's hawks (e.g., vineyards, orchards, rice) and urban expansion onto surrounding agricultural and grassland areas further threatens the population. Residential and commercial development of foraging habitat is becoming increasingly prevalent in the center of Swainson's hawk distribution in the Central Valley, particularly in Yolo, Sacramento and San Joaquin counties.

During historic times (early 1900s) Swainson's hawks may have maintained a population in excess of 17,000 pairs. Today the statewide population is estimated to be only about 550 pairs. If current trends of agricultural and urban expansion continue, the remnant population may decline to the point of endangerment. Management needs of the Swainson's hawk include ensuring availability of suitable nesting and foraging habitat through preservation of riparian systems and lone and groves of mature trees in agricultural fields, and maintenance of compatible (with the Swainson's hawk) agricultural practices in grasslands, pastures and croplands. Compatible agriculture is essential to the maintenance of current Swainson's hawk populations. Additional threats are posed by habitat loss due to bank protection projects, expansion of incompatible agriculture, shooting, pesticide poisoning of prey animals, competition from other raptors and human disturbances at nest sites.

Project Effects on the Swainson's Hawk

Raptor surveys conducted during 1993 and 1994 reported 14 sightings on the North Mainline. Seventy-five individuals were observed on the Sacramento Mainline, including one population of 50-60 individuals foraging in a field. Based on field surveys, potential nesting habitat exists on the Sacramento Mainline between MP 0.0 and MP 69, the Tracy Segment between MP 0.0 and MP 6, the Lathrop Segment between MP 0.0 and MP 9, and the Ripon Segment between MP 0.0 and MP 2. Along the North Mainline between MP 56 and MP 65, and between MP 156/165 and MP 238/249, potential nesting habitat occurs in Merced, Stanislaus, San Joaquin, Alameda, and southeastern Tulare Counties.

Construction-related impact such as increased noise and vehicular activity could temporarily jeopardize the reproductive success of nesting Swainson's hawks. The Department's policy generally prohibits construction activities within 0.5 mile of an active nest; however, recent observations indicate that many Swainson's hawk nests are adjacent to heavily used transportation corridors. It appears that these birds are less sensitive to noise and vehicular activity than those nesting in more remote areas. Impact on Swainson's hawk from construction-related activities could, therefore, vary considerably depending on the location of the nest and the surrounding land uses in relation to the proposed construction right-of-way. The proposed project is not expected to cause permanent loss of nesting habitat because any nest trees would be avoided by minor route realignments.

Mitigation measures for nesting Swainson's hawks would primarily focus on the prevention of nest abandonment during project construction. These measures would be implemented when pipeline construction would occur within potential Swainson's hawk nesting habitat during the nesting season

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from March through August 15. No mitigation of construction-related impact, other than nest tree avoidance if possible, is necessary if construction occurs after August 16, or after all fledglings have left the nest, and before February.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the **Swainson's hawk** and the adverse impacts from incidental take of the species will be minimized:

1. The preconstruction surveys of potential Swainson's hawk nesting habitat shall be conducted by authorized biologists, in March at the beginning of the nesting season and again 30 days before construction, to identify active nests within 0.5 mile of the construction right-of-way. These survey results shall be provided to the Department for evaluation of each nest site.

2. Following the preconstruction surveys but before construction, exclusion zones shall be established around all active Swainson's hawk nest sites. The radius of the exclusion zone shall be determined by consultation with the Department. Each nest site shall be reviewed on a case by case basis. Construction-related activities, especially vehicle activity and equipment storage, shall be prohibited within the exclusion zones until the nestlings have fledged.

3. All active Swainson's Hawk nests within 0.5 mile of the construction right-of-way or those within 0.5 miles selected by the Department shall be monitored by authorized biologists throughout the construction period or the nesting season, whichever ends first. Nesting birds shall be monitored for indications of distress or harassment caused by construction activities. The Department shall be notified if behavioral changes are observed.

4. Removal of any known nest trees shall be avoided if possible. If nest tree removal is unavoidable, prior to removal, the Department shall be consulted and appropriate mitigation shall be provided on a case-by-case basis, as approved by the Department.

GIANT GARTER SNAKE *(Thamnophis couchi gigas)*

The Giant garter snake, a state and federal threatened species, is the largest species of garter snake, sometimes reaching more than four feet long. It once ranged throughout the freshwater marshes of the Central Valley, but now extends from about Fresno in the San Joaquin Valley to midway up the Sacramento Valley, near Gridley. It inhabits marshes and shallow, steep-banked waterways with emergent vegetation and overhanging branches. During winter it hibernates in adjacent grassy areas on high ground. Giant garter snakes are semi-aquatic and feed on small fish and amphibians. They are primarily active during the day although they may forage during early evening hours on warm days. Their live young are born in late summer.

Project Effects on the Giant Garter Snake

Because the giant garter snake is secretive and difficult to survey, the California Natural Diversity Database (CNDDB) and habitat characterization were used to assess potential habitat. Within the project area, this species potentially occurs in all marshy and perennial stream or channel areas in the Central Valley. The CNDDB cites an occurrence of the giant garter snake on Laguna Creek near MP 6.0 of the Sacramento Mainline. Clearing and trenching activities within potential giant garter snake habitat could injure or kill adult giant garter snakes and disrupt breeding activities. The highest potential for take would occur during the winter months when adult snakes are hibernating in upland hibernacula. Potential impact would be less likely to occur from May to October when giant garter snake is active. If suitable wetland habitat is available adjacent to the construction right-of-way, giant garter snake could be expected to move out of the area while construction activity is occurring. If the stream or canal is dry during the active period, it could be assumed that giant garter snake is not present. Giant garter snake would also not likely be present in fast-moving rivers.

Temporary loss of habitat would occur during construction and until emergent vegetation is restored within the cleared right-of-way. Hibernacula consisting of burrows or excavations in upland areas adjacent to wetlands could be destroyed by trenching and clearing activities.

Measures would be taken to minimize potential impact on giant garter snake where its presence is likely on the basis of the presence of suitable habitat within its known range. Areas with a high likelihood of supporting giant garter snake and the condition of potential habitat along intermittent streams and canals would be determined through consultation with the resource agencies just prior to construction so that appropriate mitigation measures could be taken.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the giant garter snake and the adverse impacts from incidental take of the species will be minimized:

1. Unless previously authorized by the Department and the USFWS, construction within occupied giant garter snake habitat shall be avoided during the dormant season from October through April. Construction in giant garter snake habitat from May through September shall be coordinated with the Department and the USFWS.

2. If construction within giant garter snake habitat must occur during the dormant season, authorized biologists shall conduct an evaluation of all areas of potential habitat, following the Department's standard protocol. Based on the habitat evaluation, Mojave shall propose mitigation, including avoidance by boring if appropriate, on a case-by-case basis. The habitat evaluations and proposed mitigations shall be submitted to the Department for approval prior to construction.

3. Stream and canal banks shall be reconstructed in a manner that provides hibernacula for giant garter snake if approved by the party responsible for levy or bank management. Chunks of concrete rip-rap or other suitable material shall be semi-buried above the 100-year flood level.

4. The construction right-of-way width shall be restricted as much as possible within the riparian zone and wetland habitat.

5. Excavation spoils shall be placed in a designated area that is unlikely to be used by giant garter snake and shall be replaced immediately or removed after construction is completed.

6. Unless deemed infeasible, the construction right-of-way shall be cleared by mowing to a height of not less than 6 inches rather than by blading.

SAN FRANCISCO GARTER SNAKE *(Thamnophis sirtalis tetrataenia)*

The San Francisco garter snake is a federal- and state-listed endangered species Its preferred habitat is ponds, sloughs, and marshes in conjunction with open grassy areas. Primary prey consists of a variety of amphibians, including red-legged frogs and Pacific tree frogs. The snakes are extremely shy, and difficult to locate and capture. It has been threatened by loss of habitat due to urbanization and decreasing availability of prey. This is a particularly colorful snake and is sought after by clandestine collectors, adding to its decline. It now occurs at only about 30 sites in San Mateo County and extreme north Santa Cruz County.

Project Effects on the San Francisco Garter Snake

The CNDDB reports an occurrence in October 1990 in the Loma Alta Canal near MP 18 of the Hunters Point Segment. Construction of the Hunters Point Segment on the east side of the Caltrans right-of-way between MP 18.35 and MP18.55 could temporarily disturb wetland habitat known to be occupied by San Francisco garter snake. Mojave will directionally drill between MP 18.25, approximately 200 feet south of the Loma Alta Canal, and MP 18,75, to approximately 100 feet from the northernmost wetland in the vicinity. This would eliminate all impacts to habitat. Noise and disturbance due to construction of the project may still cause harm to individual snakes.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of **San Francisco garter snake** and the adverse impacts from incidental take of the species will be minimized:

1. Mojave shall install temporary snake fencing around the bore-hole at the end of each working day as long as the hole remains open.

2. Mojave shall install temporary snake fencing along the San Francisco airport property where trenching will occur. Fencing shall be placed so that it extends a distance of 100 feet north and 100 feet south of the open trench.

4. The location of any San Francisco garter snake found shall be noted on a USGS 7 1/2 minute quadrangle map. A FAX of the marked section of the map shall be transmitted to the USFWS at (916) 979-2723 and the Department at (707) 944-5570 within one working day of detection. Any San Francisco garter snakes found in the trench shall be reported to the USFWS and the Department within one working day.

5. Mojave shall perform the following measures to reduce predation and interspecific competition.

    a. Employ a team of two biologists to remove adult bullfrogs over 15 cm snout-vent length from the San Francisco Airport "west-of-bayshore" property.

    Bullfrog removal shall occur over a period of three weeks, if construction occurs November 1 through March 15; or six weeks, if construction occurs March 15 through October 31; or until it has been demonstrated to the satisfaction of the Department and the USFWS that all bullfrogs have been removed. Work effort shall be a minimum of five nights per week and five hours per night.

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b. Seine canals and wetlands at the San Francisco Airport for bullfrog larvae. Dispose of the larvae in a manner acceptable to the Department.

c. Remove bullfrog egg masses in the spring of 1996.

6. If the mitigation contained in the preceding condition on the San Francisco Airport "west-of-bayshore" property is unacceptable to the Airport, then the mitigation shall be offered to the California Department of Parks and Recreation on their Pescadero Marsh and Butano Creek properties, with the addition of acquisition of offsite compensation at the ratio of 3:1 for wetlands impacts and 10:1 for upland impacts during construction activities.

LARGE-FLOWERED FIDDLENECK (*Amsinckia grandiflora*)

The large-flowered fiddleneck, a state and federal endangered species, is an annual herb of the borage family. Its red-orange flowers are arranged in uncoiling spikes, or "fiddlenecks", typical of the genus. It occurs in low elevation grasslands and has historically been reported from a few locations in the northern Diablo Range, a portion of the Inner Coast Range. Currently, only two natural populations are known to exist, both in the hills east of Livermore, San Joaquin County. Ongoing efforts to reintroduce populations within its historical range have been labor intensive and not entirely successful.

Project Effects on the Large-flowered Fiddleneck

No populations of large-flowered fiddleneck were discovered during the field surveys, but potential habitat exists in unsurveyed areas on the Palo Alto Segment between MP 9 and MP.

Conditions to Avoid Jeopardy and Minimize Incidental Take

The following provisions, together with the general mitigation measures listed above, constitute the Department's conditions pursuant to CESA, and if fully implemented by Mojave, the project is unlikely to jeopardize the continued existence of the **large-flowered fiddleneck** and the adverse impacts from incidental take of the species will be minimized:

1. Prior to construction, an authorized botanist shall conduct surveys along the proposed route, including those areas that were previously inaccessible. The plans for surveys shall be subject to prior approval by the Department and the SLC. The survey results shall be reported to the Department and shall include the following information:

   - name(s) and qualifications of the person(s) conducting the survey;
   - method(s) used to conduct the survey;
   - date(s) of the survey; and
   - area surveyed (include the mileposts surveyed).

2. If a population of the large-flowered fiddleneck is identified during preconstruction surveys, Mojave shall propose mitigation that avoids impacts, by narrowing the right-of-way, route realignment, or special construction techniques. Such mitigation shall be approved by the SLC and the Department prior to construction. If avoidance is not feasible, the SLC shall reinitiate consultation with the Department for this species.

The SLC shall incorporate the conditions to avoid jeopardy in this Biological Opinion as conditions for permit approval or project authorization for the Mojave Pipeline Northward Expansion.

Prior to commencing any activities authorized by this Biological Opinion, the SLC shall require Mojave Gas Pipeline Operating Company to enter into a CESA MOU with the Department of Fish and Game to implement the reasonable and prudent alternatives contained within this CESA Biological Opinion. The MOU shall provide the Department with direct authority to enforce the conditions to avoid jeopardy and minimize incidental take of the listed species described above, including the authority to seek legal remedies for non-compliance with the conditions.

DISCLAIMER STATEMENT

Upon timely satisfaction of the conditions of this CESA Biological Opinion, the SLC will have satisfied the State's Endangered Species Act requirements, and understands and recognizes that this agreement does not constitute or imply compliance or entitlement to proceed with the project, with regard to laws and regulations beyond the authority and jurisdiction of the Department. The SLC has independent responsibility for compliance with any and all applicable laws and regulations.

Following execution of the CESA MOU and issuance by the Department of this CESA Biological Opinion, the decision by the SLC whether or not to proceed with said project shall be voluntary, and subject to all other pertinent law and regulations. As such, the SLC will hold the Department of Fish and Game harmless, in any violation of the law, lien, suit, or claim of injury or damage which may result from any aspect of the project, including fulfillment of the obligations under CESA Biological Opinion and MOU.

INCIDENTAL TAKE STATEMENT

Pursuant to Section 2090 of CESA, the Department determines that the potential to take the desert tortoise, San Joaquin kit fox, blunt-nosed leopard lizard, Tipton kangaroo rat, Swainson's hawk, giant garter snake, San Francisco garter snake, and the large flowered fiddleneck incidental to the project does exist. Loss of individuals may occur as result of project construction and operation. Section 2091 of CESA requires the Department to determine and specify to the State lead agency "reasonable and prudent measures that are necessary and appropriate to minimize the adverse impacts of the incidental taking." The Department has determined that if the project conditions identified in this Biological Opinion are fully implemented and adhered to, then the adverse impacts of any incidental take will be minimized.

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DEPARTMENT FINDINGS

If the above-written conditions of this CESA Biological Opinion and the MOU are implemented in a timely manner, as provided herein, the Department finds that the construction of the project will not result in jeopardy to the continued existence of the listed species.

CALIFORNIA DEPARTMENT
OF FISH AND GAME

BY: ______________________

TITLE: ______________________

DATED: ______________________

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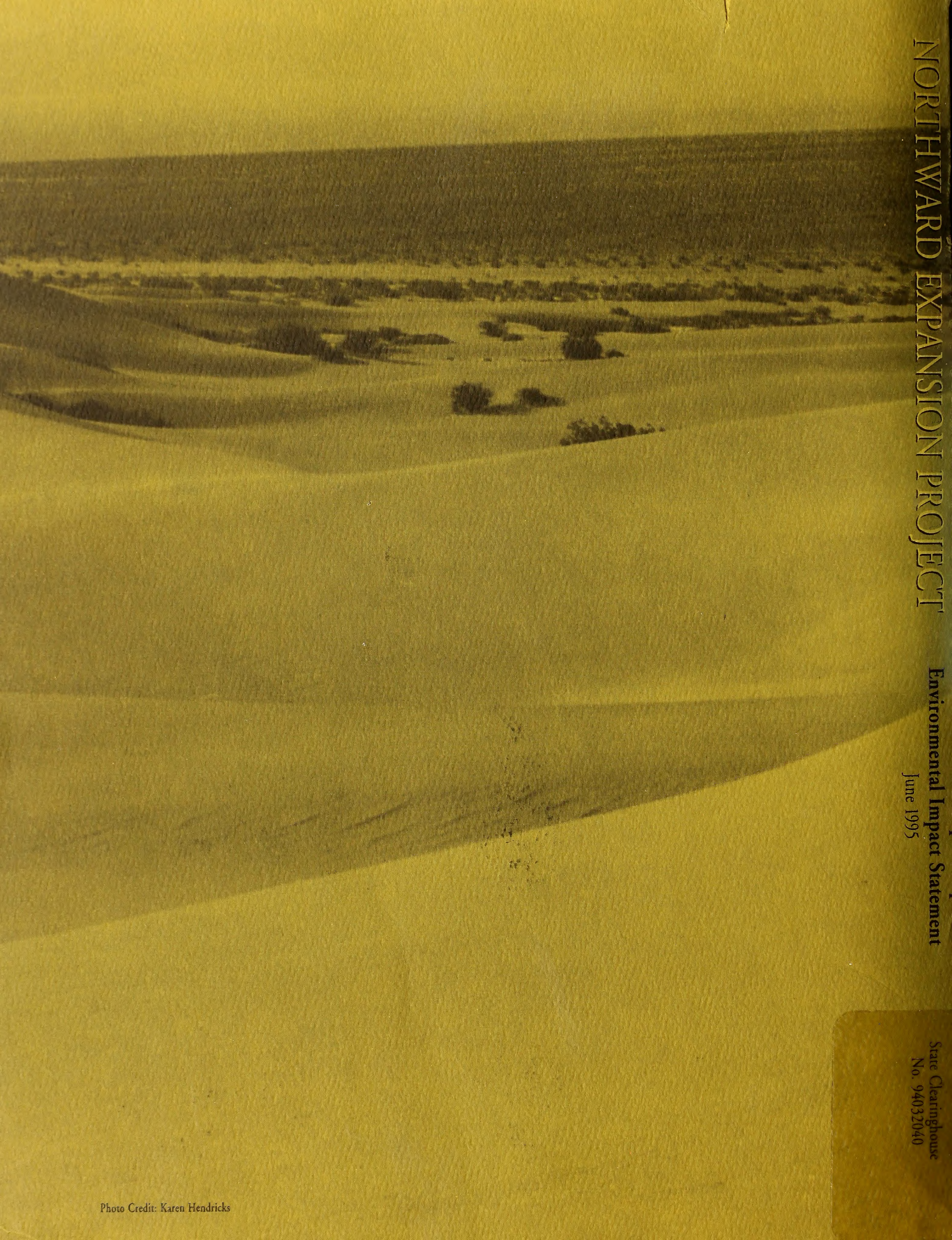

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NORTHWARD EXPANSION PROJECT

Environmental Impact Statement

June 1995

State Clearinghouse
No. 94032040